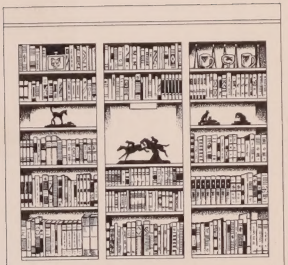
THE AMERICAN SHOOTER'S MANUAL

By
A GENTLEMAN
OF
PHILADELPHIA COUNTY



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THE AMERICAN SHOOTER'S MANUAL

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THE AMERICAN SHOOTER'S MANUAL

COMPRISING
SUCH PLAIN AND SIMPLE RULES AS
ARE NECESSARY TO INTRODUCE
THE INEXPERIENCED

INTO A FULL KNOWLEDGE
OF ALL THAT RELATES TO

THE DOG,

AND THE CORRECT USE OF

THE GUN;

ALSO A DESCRIPTION OF

THE GAME

OF THIS COUNTRY

BY A GENTLEMAN OF
PHILADELPHIA COUNTY

PRIVATELY PRINTED BY
ERNEST R. GEE
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1827

PUBLISHER'S NOTE

THE American Shooter's Manual, originally published at Philadelphia in 1827 is one of the first practical books on Field Shooting to be published in America.

There had been published in 1783 a small volume entitled "The Sportsman's Companion, or an Essay on Shooting", and while this is the first book on shooting published in America—the "American Shooter's Manual" is the first comprehensive treatise on the subject.

The early part of the book is devoted to the various breeds of dogs in the field, it describes their breeding, breaking, also the diseases to which they are liable, with the methods used for curing them.

Other chapters deal with the various kinds of game, the districts in which it is found, and the method of killing it,—also the Gun, and gun powder. This volume forms the second in a Series of Reprints of early American Sporting books which I hope to publish from time to time, the first volume, "The Memoirs of the Gloucester Fox Hunting Club" *being so well received that it has given me encouragement to bring out the present volume.*

September, 1928.
35 East 49th Street,
New York.

E. R. G.

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PREFACE

THE present publication has been undertaken, at the solicitation of several friends of the writer, who, with himself, are anxious to have a treatise on the subject, better adapted to our own country, and at a more reasonable charge, than the British publications which are occasionally imported.

It is proper to premise, that the writer makes no pretensions to originality, as to the entire work, but merely wishes the credit of having made a judicious compilation: in doing this, he has consulted the best standard sporting books, as well as the experience of several intelligent sportsmen.

Living in a country destitute of game laws, and almost without any legal restrictions, in regard to its destruction, every man, whose leisure, or circumstances will permit, may become a shooter. But of the multitude who shoot, few indeed, will be found entitled to the appellation of sportsmen; they are very generally game killers, and nothing more.

As soon as a boy arrives at the age of twelve, if he can buy, or borrow a gun, he commences shooting, in company with others, who, like himself, have neither system, nor example. Some of them, no doubt, become expert shots, but it is very rare they can manage dogs, or are safe companions; a majority of the accidents from fire arms, occurring, indeed, among these stripling sportsmen.

One great object of the present undertaking, is then, to diffuse throughout the community, a taste for genteel and sportsman-like shooting, and to abolish that abominable poaching, game destroying habit of ground shooting, trapping, and snaring, which prevails throughout our country, in the neighborhood of all cities and large towns.

It is true, that the art of shooting on the wing, is progressing very rapidly, but the science of dog breaking, is, comparatively, but little understood, and the proper information on this subject, limited to a very few. Though we may boast of many capital shots, yet, it must be acknowledged, that it is rather uncommon to meet with a well broken dog, and this not because our dogs are inferior in docility and intelligence to the European, but, because the same care in breaking and training them has not been observed.

The writer is well aware, that many subjects have been omitted in the present work, which in the opinion of some ought to have been noticed, and that more room has been occupied by others than their importance would appear to deserve. The English books contain more minute details on some of the points, than the size of the present work would admit, and many of them, in our opinion, almost foreign to the subject; for instance, long essays on hydrophobia, the history of powder, and the method of its manufacture; the making of gun barrels, guns, &c., all of which, useless to the shooter, excepting as matters of curiosity, and can be readily found in the different scientific works, from which these accounts are, in general, literally copied, and without the slightest acknowledgment. The writer does not con-

ceive any apology to be necessary for the length of two of the articles, namely, breaking and training of dogs, and shooting; he indeed regrets that the limited size of the work would not permit their more minute consideration. It has been his desire to notice everything, that he considered important to the shooter, and avoid anything like affected minuteness. He has endeavoured to give a reason for every principle advanced, and where there is a difference of opinion among sportsmen to decide, with caution and impartiality. It is hoped that the work will be received by those for whom it is intended, with many grains of allowance, and that a due consideration will be had for the difficulties attending a first attempt on any science or subject.

He is sorry to say that a few typographical errors will be found, more, probably, than can be justified in so short a publication, and he must take the blame of these entirely upon himself, for having attempted to correct the proof sheets, when his other avocations made it impossible to give to them that attention, which was necessary. As some of the errors are important, the reader is requested to examine the list of errata, and to make the proper corrections, before reading the book.*

* The present printer has corrected not only the mistakes mentioned in the list of errata, but several others. Generally the original spelling and punctuation have been followed.

THE AMERICAN SHOOTER'S MANUAL

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SHOOTER'S MANUAL

THE art of shooting flying has not been practised in this country, excepting by a few individuals, for more than forty years, and in England for not much more than double that length of time. The greatest improvements in the science, and in the fowling-piece itself, have, however, been made within but a few years; and since its adaption to the percussion powder, it would seem that the gun is capable of little or no important improvement; all that now remains, is for the shooter to acquire a knowledge of the proper use of it.

Many rules are laid down for the young shooter, all of them important, but the most perfect knowledge of them will avail but little, without frequent practice, strictly regulated by those rules.

The first and most important lesson to be acquired, is a habitual coolness and self possession: not to be agitated when the dog is at a stand, nor flurried when the birds are flushed. In fact, it is the want of deliberation that makes all our bad shots. The Juvenile or unpractised sportsman ought, for the first season at least, always to accompany some experienced shooter, attend to his instructions, and closely observe his actions.

Some persons have, injudiciously, recommended swal-

low shooting as an incipient lesson; but experience has fully proved the fallacy of this practice. Without giving a host of reasons against it, let it suffice to say, that in most instances, when a shooter undertakes to learn by that method, although he may become very expert in destroying those useful, amusing and agreeable little creatures, he never acquires any other character, as a sportsman, than that of a skilful swallow shooter.

The Rail affords beginners in this country advantages of practising on the wing, over those in England, as it is a bird heavy and slow on the wing, flies very fair, and is withal easily killed. In rising it generally makes some noise, by splashing in the water and reeds, by which it will, in some degree, prepare the shooter for its flight. As this bird is so very abundant, at the season immediately antecedent to that of the partridge, we would recommend those who have the opportunity, to practise on it, as a species of game apparently designed for that and no other purpose, in preference to the cruel and unmanly destruction of the pleasant and useful little swallow. Shooting at pigeons flushed by a spring-box or trap, is perhaps as good a method as any other for a somewhat practised shot, to acquire coolness, quickness and deliberation in shooting, as it comes nearest to the most trying of all situations for a juvenile shooter, viz. by a steady dog at a firm stand; he will by this practice, become somewhat prepared for those peculiar feelings which every shooter must, for some time, experience.

A beginner will generally fire too soon, and as a necessary result from this circumstance, too low; this is caused by the apprehension that the birds, from the rapid manner

in which they rise, will get out of this reach; Experience, however, will prove to him, that he is under a delusion, as abundant time is always given to single out a bird, bring the gun down, cock and fire.

A gentleman of my acquaintance informed me, that when young, he was frequently guilty of shooting too soon; and was effectually corrected by an old French gentleman, who, to exemplify his precepts, would take out his snuff box, after the bird has risen, take a pinch, cock his gun, and deliberately kill his bird. It is indeed astonishing, how quickly every necessary preparation for firing can be made.

Another and very important difficulty every beginner has to contend with, is the trepidation and anxiety, he will for some time experience, when the dog comes to a stand; none but those who have felt the sensation, can imagine the reality. I have observed men, and men too who had some experience, on coming up to the dog, show evident symptoms of the horrors; this is only to be got over by coolness, and resolution. Thomas says (and that with much truth) "there is no pursuit or amusement, in which a steady hand, a cool head, and philosophical patience, are more required, than in shooting." How it is, that a dog with a partridge before his nose, will make a man feel so very queer, we are not exactly able to say, further than to attribute it to the novelty of the sight, and the ambition of the shooter to be successful: the latter I think is the principal reason; for we often find shooters, who use the long bow, as well as the gun; and will not hesitate to make up an astonishing nominal account of game they have been so lucky as to kill. Others, to make up a good report, and at the same time to

back it with proof, will sometimes purchase, at high prices too, from men who make game killing their business, and then have a grand display for the hall, of their skill and success. Every gentleman can judge of the propriety, or impropriety, of these artifices to establish a character for keen shooting; and can reject, or adopt them at pleasure. My object in introducing the matter, is merely to show, that my reason for attributing in part the strange nervous affection, just mentioned, to the cause alluded to, may be correct.

If notwithstanding the observance of the foregoing rules, the shooter still finds his trepidation, or anxiety unconquered; let him, says the gentleman of Suffolk, "set forth with every appendage but (but what he thinks hard should be left behind) powder and shot. A stiff piece of sole-leather may represent the flint, to spare the face of the hammer. When a bird gets up he is certain he cannot kill it; therefore, he can wait to any length, until he gets it at the end of his gun: he must never draw unless positive of seeing the bird in that very point of situation. Let it go; every fresh spring of a bird will make him more composed; and as this tremor wears off, he will grow more uniform in his manner of getting to it, until at last he will cover it, almost to a certainty, at or very near the same distance. Let him accustom himself also never to take his gun from his arm, until the bird is on the wing; and never to vary his eye, from the very one he has fixed upon. Three words should be mentally used, with a pause between, before he brings his piece to the shoulder: this will keep him, as it were, in awe of himself; and as there is no charm in any

particular combination of letters, Hold! Halt! Now! may serve as well as any. A day thus spent, he may put some powder into the pan, and flash away, in that manner, the next; pursuing the former directions, until he can stare with steadfastness, and pull without a wink. The day following, load with powder only; and continue this lesson, more or less, until he is calm, as if the leather were yet in the chops. Now the grand and last trial, complete loading. If he feel the least flutter or anxiety on his advance to the point, let him draw his shot at once, and, powder also, before he goes up to his dog; and repeat this *toties quoties* until he has whipped himself into a good temper, and disappointed himself in the accomplishment of his wishes."

Although it is impossible to lay down any number of rules, by which a man will infallibly become a good shot; still many important hints may be given, which will much facilitate the undertaking; and at the same time, render him safe to himself and his companions. And here by the by, a word on that rascally practice, of carrying a gun cocked; a practice which cannot be too much reprobated, as a very great portion of the fatal accidents which have occurred in shooting, can be traced to this cause. If there were the slightest necessity, or convenience resulting from it, there would be some palliation for the wilful commission of, what I consider, a grevious crime; but we have before shown, there can be none; as abundant time is always had, to cock the gun, and shoot the bird. This practice is seldom heard of in England, and never tolerated among gentlemen; but it is too shockingly prevalent in this country. One man will tell you that he always carries his

thumb on the cock; very true, but his fore finger is against the trigger; so that still there is an equal chance of an involuntary discharge, and though neither the cock nor trigger were touched; besides, a party carrying his gun in that situation, is apt to shoot too quick, or in fact before he is at all prepared; as the very act of taking the thumb off the cock, naturally presses the finger against the trigger. I had the misfortune to witness the death of a man, caused in this very manner: and a friend of mine, a few days since, had part of the brim of his hat shot away, by a fellow, who was, unknown to him, in his rear; and who accounted for the accident, in the same way. Others will say they always carry the muzzle of the gun up; they only mean, they do so when it is convenient; and when they think of it: besides, it is impossible to carry the gun in that way, in a cripple, or cover. Without entering into a detail of how, and why accidents may, and do result, from this infamous practice, I would advise any gentleman, who shall be so unfortunate as to be in the field with a companion, who will persist in such improper conduct, to leave him without ceremony, return home, or shoot alone, in another direction. This may savour of incivility; but a man's politeness, should never jeopardize his life, or limbs. If after cocking the gun, the shooter should be disappointed in getting a shot, he should immediately uncock, and in so doing keep the muzzle up, and be careful to let the cock down beyond the half cock notch, and then bring it up again to the half cock; he will ascertain this by hearing and feeling the tell, when the dog goes into the proper niche of the tumbler. After firing one barrel, and designing to reload, be careful

to see that the other lock be not cocked: after you have put in the powder, and rammed home the wad properly, instead of putting the rod under your arm, or between your teeth, insert it into the loaded barrel, and give that a smart stroke or two; you will be very apt to find that the wadding has raised in the barrel by the concussion, or recoil of the gun: this practice serves important purposes: in the first place, it prevents you from losing the shot of the loaded barrel; in the second, it prevents any mistake in charging; and the third, and most important is, that all danger of bursting, from the wad rising in the barrel, is obviated. I saw, a few weeks since, a valuable gun, the left hand barrel of which was very considerably affected, from this cause, a ring, or swell, was formed around the barrel, eight or ten inches from the breech, and in the opinion of the gunsmith, would have bursted, had it not been an excellent twisted barrel.

When in the act of shooting, grasp the gun, with the left hand, near the guard, so that the hand will come partly under the lock; this is much safer in case of bursting, than the more common method, of holding the gun nearer the tail pipe; as it is found that guns more commonly burst about ten or twelve inches from the breech: it is besides, equally convenient to the shooter, unless he has a very heavy piece.

As to the best method of carrying the gun, this is a mere matter of fancy, and convenience; of no consequence, except that the muzzle should be upwards; and never pointed towards your companion: Perhaps the most convenient method is, to carry the piece diagonally across the breast, the barrels resting in the left hand.

Before entering a house, always discharge your gun, or draw the load; especially if you intend to remain in it for hours; if for a shorter time, and you have percussion locks, to take off the caps or primers, may suffice; but with flint locks, nothing but an empty gun ought to be introduced into your own or a friend's house, so many dreadful accidents have occurred from a want of this precaution, that no gentleman who wishes to be considered a real sportsman ought to neglect it. Guns are dangerous articles, and should be handled with great caution. On no account, nor under any circumstance, point a gun at another, unless you intend to take his life. In fact, a gun should always be considered as charged.

Some persons have a habit of striking bushes with the gun: this is a bad and dangerous practice, independent of the chance of having an involuntary discharge, the shot is apt to force the wad out, especially if the barrel be smooth, thus making the piece liable to burst, or at least to disappoint the shooter of his bird.

When shooting with a companion, in a cripple or thicket; if necessary for both to go along the same path, the foremost of the party should carry his gun with the muzzle forward, and elevated, as much as circumstances will permit; and the one behind, should carry his piece in the same manner, only pointing to the rear. I have known several accidents to occur, for want of this trifling precaution.

These cautionary rules to the imprudent or careless shooter, may appear womanish; but let him once suffer for their infraction; and he will no doubt be fully convinced of their importance. For my own part, I do consider a care-

less shooter worse than a Highwayman; the latter will take your property, but the former may deprive you of life.

Daniels, in his "Rural Sports," advises also "not to display your skill by firing close to the head of either man or beast, whether a companion, or a favorite pointer." A story is told of two persons shooting together, when one of them, on exhibiting in this way, put several shots in his friend's arm, who made suitable outcries. In the course of the day the compliment was returned, with interest, by the wounded man:—"You're a pretty fellow," exclaimed the man last hit, "to be so vociferous about my shooting you this morning; why d—n me, I have half your charge now in my leg";—"very likely," replied the other, coolly, "but I killed my hare and your bird was missed."

When a bird has flushed, the shooter should keep his eye on it, cock his gun, and bring her up, at the very moment he intends to shoot, and the instant the bird is in a line with the barrel, provided the bird flies from him, draw the trigger. If there be more than one, he should immediately bring his gun down, and cock, but after having singled out his bird, should never take his eye off the object until he has fired; and not then, if he has reason to think the bird is struck. This he will know, by the feathers parting, or by the bird dropping its legs, or by towering: in the two last cases, he may be pretty confident that the bird is mortally wounded; although it may fly more than the fourth of a mile. Towering is when the bird raises up to an unusual height; and is caused by a wound in his head, or spine. For these reasons it is very important to be a good marker. This faculty is acquired in a wonderful degree, by those men,

who push the boats for gentlemen in the rail season. I have known four, or five rail, to be killed in different directions, among high reed, at one time; and all out of view, the shooter perhaps unable to tell, in which direction any, but the last bird shot, might lie: nevertheless the experienced pusher will move the boat, and without any difficulty pick them all up, one by one.

If the wood grouse, (or pheasant, as it is very improperly called in Pennsylvania) after being shot at, twitches up his wing, and turns his body to one side, you may rely on it he is mortally hit: the direction of his flight ought then to be carefully observed, as he will most likely be found dead, though perhaps at a great distance.

If a bird be winged, or wounded so slightly, that it can still run, the shooter should not go after it, until he has reloaded; nor permit his dogs to move, even though the loss of the bird be certain. A contrary practice will teach the dogs bad habits, and make them apt to flush game. It is however, very seldom that a wounded bird, will escape from a good dog.

Much is said in the books on the subject of cross shots; recommending the shooter to aim before, and above the bird &c: of the necessity of this, I am not aware, with a percussion lock, unless at game a long distance off. It has been my practice, always to cover the bird, and all the good shots I have conversed with, say they do the same: I think there is more theory than necessity, for any other method; in fact I think it almost impossible for the shooter to aim (at what cannot be seen) some two, or three feet a-head and at the same time have a sight on the bird: it may per-

haps be done by a cross-eyed man, who keeps both eyes open; one to watch the motion of the bird, and the other the sight. An objection also arises to this practice, in as much as some birds will occasionally make a short turn, and then there will be a great chance for a miss. One thing, however, must be observed: and that is, to keep the gun fully bearing on the bird until you have shot; not to suspend this motion when the trigger is drawn, but to traverse the gun until explosion has taken place; unless this be done, no bird flying in a transverse direction will be hit, except by a scattering shot. The easiest shot is at a bird flying directly from the shooter, but the difference between this and a transverse shot, is very trifling. Most persons prefer a left hand shot, but some the right. Some shooters recommend firing with both your eyes open, but for what reason, unless for its novelty, I cannot conceive; there is neither convenience nor advantage in the practice, and besides, I have some doubts as to its feasibility; I have heard, it is true, of individuals who do shoot in this manner, but have never met with them, nor do I know any person who has. The ingenious author of "Rural Sports" says, very properly; "In sporting, it is to be ever remembered that the hand is to obey the eye, and not the eye be subservient to the hand:" and further, that "The object should be fixed, the instant the muzzle of the gun is brought up and fairly bears upon it; the sight becomes weakened by a protracted look along the barrel at a bird, and it is for this reason, that birds, which spring at the marksman's feet and fly off horizontally, are frequently missed; his keeping the aim so long upon them, fatigues the sight and the finger

does not obey the sight so readily, as when employed at a first glance. It is not here meant, that a bird is to be blown to atoms as soon as it tops the stubble but that a marksman is, first, to make himself a thorough judge of distance: With that knowledge, in open shooting, he will never put the gun to his shoulder until the bird has flown a proper length, and then fire the instant the sight of it is caught."

To wad a gun properly, the shooter should be well acquainted with the quantity of powder and shot with which his gun will shoot best, and to be careful not to overload; independently of the recoil, which sometimes produces painful effects, the gun is always more or less injured, by cracking the stock; and the chance of killing is much less, than when the piece is properly charged. Guns of the same length and caliber require different loads, some shooting much heavier charges than others. The best method of ascertaining what ought to be the charge is, to take a number of sheets of writing, or wrapping paper, say thirty or forty; and shoot at them the same number of yards: beginning with a small load, and increasing it, until that portion of powder and shot is ascertained, which drives the shot through the greatest number of sheets, with the least scattering. Too great a charge of powder will cause the gun to throw the shot widely, while too heavy a portion of shot will produce a recoil, and weaken the effect. As to the size of the shot, that must depend upon the kind of game you intend to shoot, and the season. During the month of October, in this country, numbers 6 or 7 will be found to answer, and in December, as the birds have acquired more strength and thicker plumage, coarser shot

will be required: besides, in partridge shooting, we very frequently find the ruffed grouse or Pheasant which, from its shyness and great strength, is not easily stopped with fine shot. With coarse shot, the shooter is not so likely to hit, but he is more certain of killing than with fine: I believe the higher numbers of shot are too generally used in this Country, at least they are much more so than in England; this arises, I presume, from our having with us, a greater number and variety of small birds, killed merely for the pot, than they have; small shot being found to answer as well for the Rail, Reed bird and Snipe, the season for which is so nearly connected with that for Partridge, that many of our shooters do not think of changing their shot, and continue on with numbers 7 or 8 during the whole season. In England it would seem that some of their shooters carry this matter to the other extreme and shoot with shot entirely too coarse according to our notions of propriety; General Hanger for instance, recommends number 2 for the entire season: it must, however, be remembered, that their partridge is a much larger and stronger bird than ours, but the difference is not so great as to justify such a wonderful disparity in the size of the shot.

In loading, the shooter should keep his gun as far from his body as convenient, and on no account hold it with the muzzle to his face, and he should be very careful that the loaded barrel be not cocked. The percussion lock has, it is true, lessened, in some degree, the danger in charging; as it is not usual to put the prime on the tube before loading; but the danger of charging with one barrel uncocked still remains, and the possibility of an accidental discharge,

from fire remaining in the piece, is not diminished. I have known, personally, of an accident of this kind, although in that instance, the party had, fortunately, a long gun, by which very probably he escaped without injury.

But the infrequency of an accident, from any particular cause should not make the shooter less careful to guard against its occurrence, because "what has once happened may again occur."

I may here repeat the trite, but highly important cautionary observation, that in the best of hands guns are dangerous articles, and should be handled with the greatest circumspection and care. It is not prudent for more than two to shoot in company, and when the party is larger, the better plan is to divide, and to shoot by couples, in different directions. When two are shooting in company, it should always be understood, that a bird rising and flying to the right is to be shot by the right hand shooter, and by the left hand man, when the bird flies in that direction. This practice will prevent the occurrence of drawn shots, or any unpleasant feelings between the parties. What is to be said on the subject of the fowling-piece itself, powder, shot, wadding, &c. will be given under their respective titles.

On arriving at the field the shooter should be the first to enter—his dogs following, and on no account should he permit them to go out of one field into another, until he is prepared to follow. If he find them disposed to break fence, he should call out ware (pronounced war) fence and not allow them to leave the field until he comes up. He should not, if circumstances will permit, go straight through a field unless he expects to find no game in it, but he should

walk in zig zag directions at the same time giving his dogs the wind as much as possible; that is, hunting them against and across the wind. Birds very frequently, when running, go down the wind, and if the dog foots them, on his coming close upon them, they will generally flush; when therefore the shooter finds his dog to be trailing, unless he be an extremely cautious animal, he should call to him hold up, and hunt him to the windward of the direction in which the birds are supposed to be running. When the dog is close upon game, which will be easily discovered by his actions, the shooter should caution him to take heed, to prevent his flushing them, which frequently happens with careless dogs. When there is reason to believe that there may be game in the field or cover, the shooter should not be satisfied with traversing but once, let his dogs be ever so good:—on some days the scent will not lay, and on others, the birds will lie so close as not to be easily found by the dog.

Johnson in his very excellent treatise says, "suppose the young shooter in the field with two dogs; he perceives one drawing on the scent and settling to a point—let him call out to-ho! holding up his hand at the same time: the word will induce greater care in the first dog; and if the other should not be aware of the game, he will immediately look about him, and seeing his master's hand, will keep his position (no matter what his situation may be, either before or behind the shooter) or to speak as sportsmen, will back. I will suppose both the dogs perfectly steady—let the sportsman advance deliberately up to the setting dog, and if the game should not spring, let him go before the dog;—if the birds should run instead of taking wing, he will be aware

of the circumstance by the dog following, but if the dog follow or foot too eagerly he should be checked, by the word, take heed! These are anxious moments, but the sportsman must nevertheless, summon all his fortitude, and continue as calm as possible, with his thumb on the cock: when the game springs, pull up the cock, select an individual object; if the bird fly straight forward it is a very easy shot; let the sportsman direct his eye down the barrel and the instant he perceives the bird on a line with the muzzle pull the trigger; in levelling, however, the aim should be directed rather above than below the object; for the shot if correctly thrown will form its centre from the centre of the muzzle of the fowling-piece: nevertheless, in this respect allowance must be made for the trim of the gun, or for the manner in which it throws shot; with which I am supposing the sportsman perfectly acquainted."

Many other remarks and directions might have been given, but I cannot conceive they would have any other tendency than to increase the size of this book, and to confuse the recollection of the reader. It will happen with some persons, that although these instructions may be by them rigidly obeyed, nevertheless they can never become good shots, for this simple reason, that nature never intended they should be. It will also sometimes happen, that the best shots, on particular occasions, may make bad shooting, without being able to account for the cause — when this occurs, I would recommend the shooter to stop shooting and to take his seat by the side of a bank, or at the foot of a tree, and then, by completely abstracting his mind from the object of pursuit, in a short time, get the better

of his evil genius: if he can find nothing better (as books are out of the question) let him be diverted by counting once or twice the number of pellets contained in his shot charger. This project I have tried under similar circumstances and with uniform success.

THE DOG

AMONG the animals most serviceable to man, is without doubt to be ranked the dog. Without indeed the assistance of those valuable qualities possessed by the canine race, many of those beasts which are now under our dominion, and upon which we depend for many of the comforts and even necessaries of life, could never have been reclaimed from their savage state, but would have been now roaming, useless, in unfrequented wilds, or if they approached the abodes of man, would exhibit themselves only in the character of a dreaded foe. Generous, affectionate, and trusty, in a degree, far superior to every other animal, these natural qualities appear to be conferred upon the dog, solely for the benefit of mankind; that he may be rendered by them, our agreeable companion, useful servant, and most bold and safe defender. And though abused by the savage, who is indebted to him for almost existence itself,—yet have his services and his virtues constituted the theme of the poet's song—and received from eloquence its highest meed of praise.

"The Dog," says the eloquent and ingenious Buffon, "is perhaps the most intelligent of all quadrupeds, one of the most useful servants, and certainly the sincerest friend to man. Independent of his beauty, his vivacity, force, and swiftness, he possesses all those internal qualifications that can conciliate the affections of his master, and induce the

tyrant to become a protector. A natural share of courage, an angry and ferocious disposition, render this animal, in its savage state, a formidable enemy to the different tenants of the forest; these qualities, however, give way to others of a very different complexion in the domestic dog, whose only ambition seems to be a desire to please: he is seen to come crouching along, to lay his force, his courage, and all his useful talents at the feet of his master; he waits his orders, to which he pays a ready and implicit obedience; he consults his looks, and frequently a single glance is sufficient to put him in motion; he is constant in his affections, friendly without interest, and grateful for the slightest favours; he is much more mindful of benefits received, than injuries offered; far from being driven away by unkindness, he still continues humble, submissive, and imploring; his only hope, to be serviceable, his only terror, to displease: he licks the hand that has been lifted to strike him; and at length, by submissive perseverance, disarms resentment."

"More docile than man, more obedient than any other animal, he is not only instructed in a short time, but also conforms to the dispositions and manners of those who command him. Like the rest of the domestics, he takes his tone from the house he inhabits; he is disdainful among the great, and churlish among clowns. He is always assiduous in seeking his master, and friendly only to his friends; to all the rest he is indifferent, and declares himself openly against such as seem to be dependent like himself. At night when the guard of the house is committed to his care, he seems proud of the charge; he continues a watchful senti-

nel, goes his rounds, scents strangers at a distance, and, by barking, gives them notice of his being upon duty: if they attempt to break in upon his territories, he becomes fiercer, threatens, flies at them, fights, and either conquers alone, or alarms those who have most interest in coming to his assistance. When he has torn from the intruders what they were endeavouring to steal, he quietly reposes by the spoil, and will not touch it even to satisfy hunger."

"Hence we see of what importance this animal must have been to man in a state of nature. Supposing for a moment, that the species had not existed, how could man have been able to conquer, tame, and reduce to servitude, every other animal? How could he discover, chase, and destroy, those that were noxious to him? In order to be secure, and become master of all animated nature, it was necessary for him to begin, by making a friend of part of it, to attach such creatures to himself, by kindness and caresses, as seemed fittest for obedience and active pursuit. Thus, the first art employed by man was in conciliating the favour of the dog; and the fruit of this art was the peaceable possession of the earth."

"The generality of animals have greater agility, greater swiftness, and more formidable arms from nature than man; their senses, too, and particularly that of smelling, are far more perfect; and the gaining, therefore, a new assistant in the dog, whose scent is so exquisite, was gaining a new sense—a new faculty, which before was wanting to us. The machines and instruments which we have imagined for perfecting the rest of the senses, do not approach to that prepared by nature in the dog, by which

we are enabled to find out every animal, though unseen, and thus destroy the noxious, and avail ourselves of the serviceable."

"The dog, thus useful in himself, taken into a participation of empire, exerts a degree of superiority over all animals that require human protection. The flock and herd are even more obedient to his voice than to that of the shepherd or the herdsman; he conducts them, guards them, and keeps them from capriciously seeking danger; and their enemies he considers as his own. Nor is he less useful in the chase, when the sound of the horn, or the voice of the huntsman, calls him to the field—he testifies his pleasure by every little art, and pursues, with unwearied perseverance, those animals, which, when taken, he must not expect to divide. The desire of hunting is indeed natural in him, as well as in his master, since war and the chase are the only employment of savages. All animals that live upon flesh, hunt by nature: the lion and the tiger, whose force is so great that they are sure to conquer, hunt alone, and without art; while the wolf, the fox, and the wild dog, hunt in packs, assist each other, and share the spoil. But when education has perfected this talent in the domestic dog; when he has been taught by man to express his ardour, to measure his motions, and not to exhaust his force by too sudden an exertion of it, he then hunts with method, and generally with success, unaided by his fellows."

The natural history of the dog, notwithstanding the species is common to the whole world, with the exception, perhaps, of some groups of Islands in the Pacific Ocean, is still involved in great doubt and obscurity; many writers

contending that the wolf is the stirpes or root of all the varieties, whilst on the other hand, some, amongst whom is ranked the great naturalist just quoted, contend that the shepherd's dog is the origin of all others. Naturalists, particularly in former years, have too frequently given us hypothesis for fact—or have rested their conclusions upon insulated and disputable circumstances. The very strong resemblance which exists between the wolf and those varieties of dogs, in particular, which are as yet imperfectly reclaimed from a savage state, would appear very strongly to point out the former, as the stock from which all the varieties of the domestic animal have originally sprung—the peculiarities of the different varieties being the result simply of domestication—climate, food and education. In evidence of the above supposition we have the following conclusive facts. 1st. The identity of the anatomical structure of the dog and wolf—particularly in the number, general form and arrangement of their teeth, and in the form and structure of their genital systems. 2ndly. The similarity of their habits &c. Both the dog and wolf in a state of nature exhibit similar habits and dispositions—they both hunt in packs—live upon the same kind of food—exhibit similar degrees of intelligence;—during their sexual season they engage in the most furious combats with each other for the possession of the females, whilst also, they are liable to the same diseases particularly hydrophobia. 3rdly. The wolf, as well as the dog, is capable of being tamed, and when thus domesticated it presents, in its manners, habits, motions, attachment to its master, its capability of distinguishing him, by his voice or scent after a long absence,

among a crowd of strangers &c., all those peculiarities which everyone knows are the distinguishing traits of the domestic dog. For these facts we are indebted, principally, to F. Cuvier, one of the most distinguished and scientific naturalists of the present day, (see Anal. du mus. d' histoire naturale.) In 1800 a full grown she-wolf, that had been caught in a trap was brought to the Royal Menagerie at Paris, it became so tame as to live among the dogs, and propagated with them repeatedly. She, like them, barked at all strangers, and so far forgot her carniverous appetite, as to offer no injury to the poultry, to which she had free access. In the East, and particularly in Persia, we are informed in the Ency. (art. Canis) wolves are exhibited as spectacles to the people; when young they are taught to dance, or rather to perform a kind of wrestling with a number of men. Chardin tells us, that a wolf, well educated in dancing, is sold at 500 French crowns. 4thly. The striking external resemblance between the dog, so common in the villages of many of our northern Indian tribes, and the native wolves with which their immediate vicinity abounds.

Some interesting remarks, on the native North American dogs, are contained in the Med. & Phys. Journ. vol. 1—pt. 2, page 13, from the pen of the late Professor Barton. "The Indian dog," he remarks, "is frequently called by the traders and others, 'the half-wolf breed'; his general aspect is, indeed, more that of the wolf, than of the common domesticated dog";—this resemblance is farther manifested by the figure of his body, his erect and pointed ears, his long, small snout, and very sharp nose;—"his barking is more like the howling of the wolf."—"Our dogs when

once attacked by these Indian dogs always fear and shun them. It is a curious circumstance that the Indian dog will never attack, or pursue the wolf, which the common dogs so readily do; this fact seems to point, very strongly, to the origin of the American animal." The Professor adds, "every thing shews, that the Indian dog is a much more savage, or imperfectly reclaimed animal, than the common dog." Mr. Say is of opinion, that it is the Canis latrons, the Prairie or barking wolf, which is most probably the origin of the domestic dog of the Indians. (see Long's Expedition, vol. 1, page 168).

5thly. The fact that copulation has taken place between the wolf and dog, and that the offspring of such congress are prolific, is a conclusive proof that they are of the same species. It is an axiom universally received among naturalists, that animals of the same kind, but different in species, may produce offspring having points of resemblance to both their parents, but their offspring are invariably sterile or incapable of propagation; hence, whenever prolific offspring result, from the copulation of any two animals, they must have been of one and the same species. The evidence that the offspring of the wolf with the dog, or vice versa, are prolific, is as follows. An animal merchant in Holborn, turned a wolf to a Pomeranian bitch in heat—the congress was immediate, and as is usual between dog and bitch; she produced ten pups. Mr. Pennant, the distinguished naturalist, who relates this fact, subsequently saw one of these pups, at Gordon Castle, that had very much the resemblance of a wolf, and on being slipped at a weak deer, it caught the latter by the throat and killed it:—"I could

not learn," remarks Mr. P., "whether this mongrel continued its species; but another of the same kind did, and stocked the neighbourhood of Fochaber, in the County Moray, Scotland, where it was kept, with a multitude of curs, of a most wolfish aspect. There was lately living," adds this naturalist, "a mongrel offspring of this kind: it greatly resembled its wolf parent. During day it was very tame; but at night sometimes relapsed into ferocity. It never barked, but rather howled; when it came into fields where sheep were, it would feign lameness, but if no one were present, it would instantly attack them. It had been seen in copulation with a bitch, which afterwards pupped." "The bitch will also breed with the fox. The Woodman of Mongewell, Oxfordshire, England, had a bitch which constantly followed him, the offspring of a tame male fox, by a shepherd cur, and she again, had puppies by a dog." In confirmation of the above, Dr. Pallas, writing from the north of Europe, 1781, states, "I have seen at Moscow, about twenty spurious animals, from dogs and black wolves. They are for the most part like wolves, except, that some carry their tails higher, and have a kind of hoarse bark. They multiply among themselves." Mr. Hunter, the celebrated surgeon, and naturalist, declares likewise the fact of prolific offspring, resulting from the copulation of the dog, and wolf. During Parry's expedition to the North Pole, Mr. Sabine states, that the dogs belonging to the ships were repeatedly observed to copulate with the savage wolf; which circumstance, this gentleman, who was joined in the expedition, in consequence of his being "well skilled in natural history," considers a convincing proof of the

identity of species. The wolf, in the menagerie at Paris, referred to by Cuvier, as already mentioned, propagated with the dogs. It is considered indeed, in America, a fact very fully established, that the wolf and dog will, and frequently do, copulate; to my own knowledge, it is very common for the hunters, in the interior and western parts of Pennsylvania, to chain a bitch, when in heat, in parts of the forests frequented by wolves, for the purpose of improving, by crossing the breed. The dogs thus produced, I have frequently seen, and in most instances they bear so close a resemblance to the wolf, that a superficial observer would not know any difference.

Buffon, it is true, informs us, that he had a young dog and a female wolf kept together for three years, that they would not copulate, but wrangled and fought, until, eventually, the dog killed the wolf; but, he also states the fact, that the dog, when let loose, was equally savage with the wolf, and had to be destroyed. This statement of Buffon is entirely too weak to overthrow the respectable evidences we have advanced, in proof of the copulation of the dog with a wolf, and of a prolific offspring being the result of such congress; the instance referred to by this naturalist, only goes to prove, that a certain wolf and a certain dog would not allow of sexual intercourse between them, a circumstance which I have known to happen with dogs themselves. A friend and neighbour of mine has now a very fine setter bitch, and as she became proud, he borrowed a strong, young dog of a gentleman a few miles off, and confined them together, but though the bitch was in heat, the dog, contrary to all reasonable expectations, showed

not the least disposition to have connexion with her—the gentleman was then obliged to borrow another dog, which lined her in a few minutes after they were placed together—hence, we may with great propriety view the experiment of Mr. Buffon, as entirely inconclusive—the same causes may have operated, to prevent a connexion, in the one instance, as in the other.

From the above facts, we are warranted in the conclusion, that the wolf is the original stock from which has sprung the domestic dog, notwithstanding the bold assertion, to the contrary, of the French naturalist, already referred to, or the doubts of more modern, but less imposing authorities. We have noticed the fact, of a prolific copulation being supposed possible between the domestic dog and the fox; there is good reason, however, for suspecting the offspring of such congress to be mules incapable of propagation.

It has been principally objected to the identity of species, between the wolf and the dog. 1st. That the period of gestation, or the length of time the female goes with young, differs in each of these animals — this is a gross error; modern naturalists have established the fact, that in this respect the wolf is perfectly analagous to the common dog. 2ndly. That the wolf and dog live to different ages —even if this fact could be satisfactorily established, it proves nothing, no one ever pretended that "a dog is a wolf"—we know, that upon all animals, domestication and a change of habit produce considerable changes in regard to their longevity. The late American writers on natural history state the ordinary age to which the native wolf

survives to be 15 years, the same as that of the dog. 3rdly. That there is between the dog and wolf a difference of external form;—this argument is perfectly futile and unscientific—in all the essentials of anatomical structure the two animals differ in no degree; nor, even in external form and features, is there a greater difference between them, than there is between the mastiff and lap-dog, animals confessedly of the same species. 4thly. A natural and unconquerable antipathy is supposed to exist between the dog and wolf—this we have proved already not to be true, from the fact that, even in their savage state, wolves have admitted of copulation with the dog. It has, indeed, been said that the domestic dog will invariably run from a wolf, nay that a pup, the first time it comes in sight of one, will exhibit dread; this, like many other of the statements of naturalists, is founded on imagination, not on fact. A dog of inferior size and courage will, it is well known, fly from another dog, or cowardly slink from its presence; nay even the generous and noble mastiff, when it has once experienced the savage strength and fierceness of the wolf, may exhibit, ever afterwards, a desire to avoid an engagement with him.

But notwithstanding all this, the domestic dog will attack, and even conquer the wolf;—it is well known, to those the least acquainted with history, that at one period a great part of Europe was infested by immense herds of these animals, and that they were hunted and destroyed, by the princes and noblemen, by means of blood-hounds—grey-hounds, beagles &c.—Well authenticated instances have occurred in this country, where dogs have voluntarily

attacked the wolf, and have defeated him when not urged on by the presence and authority of man. By the editors of the "Encyclopædia Britannica" the singular fact is asserted that the race of European dogs show a strong antipathy to the native dogs, found in possession of the Indians of this country.—"They never meet the latter, but they shew all possible signs of dislike, and will fall on them and worry them, with the utmost fury." This is another strong proof that the dog of the Indian is but one removed from a domesticated wolf.

It has been asserted that the dog is not a native of America, but was introduced into the country by the Europeans, subsequent to its discovery. This statement is to be found in Buffon, and it may be ranked pretty much upon a level with his very veracious statements in regard to the pretended degeneracy of all animals in the new world—an opinion so triumphantly refuted by the Abbe Clavigero and the late Mr. Jefferson. Buffon indeed contradicts himself, for after gravely asserting that the dog did not exist in America at the time of its discovery, he subsequently admits, upon the authority of Hernandez, that the animal is actually a native of the new continent. The Abbe Clavigero, in his history of Mexico, declares, that at the time of the conquest, four kinds of native dogs were found in that country, viz. the hairy dog, the hunchback dog, the little eatable dog and a dog called cibolos. Neither can there be any doubt concerning the fact, that the Esquimaux, Newfoundland, and all the other dogs found domesticated among the Indians of North America, are natives.

The essential characteristics of the dog, in a scientific

point of view, are as follows:—He has 42 teeth in all; twenty in the superior jaw and twenty-two in the inferior; viz. in each jaw six incisors, or cutting teeth, placed in a regular series; before they have been much worn by use, their crowns are divided into three lobes; on each side of these teeth is canine, or dog tooth, of a conical form, sharp and smooth; in the upper jaw, on each side of these, are 6 molars, or grinding teeth, made up of 3 small, sharp teeth, or false grinders, with cutting edges, single lobed, 1 double pointed (bicuspid) grinder, and two small teeth with flat crowns, the 1st having two sharp projections on its exterior surface; in the under jaw, on each side, are 7 molars, or grinders, made up of 4 false grinders, 1 bicuspid, and 2 tuberculous teeth. The snout of the dog is pointed, a considerable portion of its extremity being naked and rounded. —The tongue is smooth. The fore feet have 5 toes, the hind feet but 4, these are all provided with strong elongated but rather blunt claws, which are incapable of being drawn within a sheath as in the cat kind. The tail is of various length.—The size, form and position of the ears, various—The nature and colour of the hair dissimilar, with this curious exception, the truth of which has been established by Desmarest, that whenever the tail of the dog offers the mixture of any colour with white, the latter is always at the extreme point of the tail. From the structure of the teeth and of the intestinal canal in the dog, it is very evident, that he was intended by nature to subsist principally upon flesh, and we accordingly find, that it constitutes his entire food in his savage state; when domesticated, however, he will subsist upon farinaceous roots and

seeds, particularly when cooked, and upon every variety of bread. Although naturally carnivorous, it is said that he will not eat, indiscriminately, every kind of animal substance, but the truth of this appears to want confirmation, it is certain that many varieties of the domestic dog will not eat the flesh of birds, we suspect, however, that this is more the effect of education than a natural instinct.

The digestive powers of the dog are so powerful, as to enable him to obtain nourishment from the hardest bones. He will devour the most putrid flesh, and from a peculiar property in the juices of his stomach, this will become perfectly sweet before it undergoes digestion. The dog eats enviously, with oblique eyes, and if allowed, will gorge himself, with any favourite food, so as to be scarcely able to contain himself: when certain forms of disease assail him, he uses the blades of grass, particularly of the bearded wheat grass, or rough cocks-foot grass, as an emetic. Though the dog be a voracious animal, yet he is capable of living a considerable time without sustenance, or at least with very little;—in the memoirs of the Academy of sciences, an instance is related of a bitch, who was accidentally shut up in an empty house, where she lived for forty days, with no other nourishment than what she derived from the wool of an old bed quilt, which she had torn to pieces. A constant supply of water would appear to be more necessary for the support of the animal, than of food, as he drinks often, though not in great abundance: his mode of drinking is by lapping with the tongue; he is in some measure obliged to lick in this manner to prevent the immersion of his nose in the water. Although his common

drink is water, he may be taught to drink many other fluids.

The excrements of the dog are, generally, hard, and in somewhat rounded balls, which, especially after eating bones, are white:—the latter, among the ancient physicians, were highly esteemed as a remedial agent, and introduced into the materia medica under the name of album græcum; they have, however, for many years, been entirely expelled from the lists of medicines—nevertheless, they are even now not without their value, being extensively used in the manufacture of morocco leather. The dog does not void his excrement promiscuously, upon everything that happens to be in his way, but upon stones, sticks, trunks of trees, piles of sand, &c. Until he is a year old, he ejects his urine by crouching his hind legs, subsequently, he throws it side ways, by raising his leg, against a stone, wall, tree &c. and if possible, where some other dog has previously ejected his; and it is curious, that a dog will scarcely pass a stone, or other place against which another has urinated, without following his example, however numerous these opportunities may be; it is indeed astounding how such a quantity of urine can be secreted in the space of a few minutes.

The dog is not only an animal of quick motion, but remarkable for travelling long journeys. He can easily keep up with his master, either on foot or horseback, for an entire day. When fatigued he is seldom if ever observed to sweat, but lolls out his tongue. Every kind of dog is capable of swimming, but the water dog, in this circumstance, greatly excels all others. The dog sleeps but little, and even

that does not seem over sound, for he often starts, and seems to hear with even more acuteness while asleep than when awake. They have frequently a tremulous motion in their sleep, often move their legs, whimper or bark, which are considered as indications of dreaming. From the very great extent of the interior parts of the nose in dogs, over the whole of which the olfactory nerves are thickly spread, he is possessed of the sense of smelling in the highest degree. He can trace his master, by the smell of his footsteps, in the midst of a crowded church, or in the streets of a populous city. This sense is not, however, equally intense in every variety of the animal—the hound can trace game, or his master's footsteps, 24 hours after they have passed. He barks more furiously the nearer he approaches the object of pursuit, unless he be trained to silence.

The dog, however peaceable and inoffensive in the company of his master, or any of the members of his family, is wont, when alone, to attack strangers, particularly if meanly clad, or any ways suspicious in their movements. The dog, in many parts of the world, is employed as one of the best and most vigilant guards to those extensive flocks of sheep which are fed for their wool; these flocks he will not only keep from straying out of their appropriate pasturage, but will defend them against every enemy, whether biped or quadruped, and yet, it is a curious circumstance, that many dogs will travel during the night to considerable distances, for the sole purpose of destroying such sheep as they are enabled to attack, and with the morning will return to their usual places of resort, as

though desirous of preventing any suspicion in relation to their nocturnal depredations. It appears to me, however, that these "sheep killers," are to be found, principally, among those dogs that roam at large without any home or master;—at one period, the city of Philadelphia was infested with a great number of these half savage animals, and it is well known, that they have, after night, passed the river Schuylkill in droves, to attack the sheep in the neighboring country; so that it appears, the moment the dog is allowed to live from under the eye of man, he quickly returns to the habits peculiar to his original wolfish nature. The dog bites at the stone cast at him—is fond of licking wounds—howls at certain notes of music, and often urinates on hearing them.

With respect to the propagation of dogs, the female admits the male before she is one year old. She remains in heat from 10 to 15 days, during which time she will admit a number of males. She is in heat, commonly, twice in the year, more frequently in the cold than hot months. The male discovers the condition of the female by the smell, she seldom, however, admits him during the first days she is in heat.

The reason why the dog remains in the act of copulation for a considerable length of time, arises from the peculiar structure of the genital organs in both sexes, in consequence of which, the part of the male becomes hitched, as it were, within that of the female, and he is unable to retract it, until the semen is secreted and discharged: one copulation is sufficient for a fruitful impregnation. The female goes with young, about nine weeks.—She gener-

ally brings forth from six to twelve pups; those of a small size, however, bring forth but four or five, sometimes but two. They continue to copulate and bring forth during life, which commonly lasts from 14 to 15 years—though it is not unusual to meet with dogs nearly double that age. The whelps are not, when first produced, completely formed; the eyes, in particular, are closed, the eyelids being held together by a thin membrane, and they continue in this state from nine to twelve days. At the end of four months, the dog like most other animals, sheds some of his teeth, which are quickly replaced by others more permanent.

An animal possessed of so many uncommon qualities as the dog, and withal so docile and obedient, it must be evident is, capable, as we have already remarked, of being employed by man, for many useful purposes. His fidelity, strength, and vigilance are daily employed for the protection of our persons, our flocks, and our goods. The acuteness of his smell and his sagacity become valuable to man, when directed to the discovery, within their most secret retreats, and to the destruction, of numbers of our natural enemies, inimical to our interests and to our safety; while at the same time, he affords, to man, the exhilarating and healthful sports of the field.—In Holland and other parts of Europe he is trained to draw little carts loaded with produce, while among the Kamschatkans, the Esquimaux, the Greenlanders, and other northern nations, the dog constitutes their only beast of burden: Three or four Esquimaux dogs harnessed to a sledge, weighing itself 100 pounds, will draw a man over the snow or ice at the rate of one

mile in six minutes. And nine of these dogs have been known to draw 1611 pounds, one mile in nine minutes! But enough of this—it is alone with those services the dog can render to the shooter, that we have to do on the present occasion.

But previously to entering upon the subject of the varieties of the dog best adapted for the field, it will be proper to speak of the diseases to which the animal is liable, and of their remedies.

Hydrophobia

Notwithstanding the valuable and faithful services mankind receives from the intelligence and docility of the dog, the domestication of this animal is attended with a very serious drawback; I allude to the possibility of our deriving from it, one of "the most terrible evils," in the form of hydrophobia; a disease "perhaps the most agonizing and horrific to which humanity is liable, from whose aspect, or endurance, the stoutest hearts and best regulated minds shrink away in terror," and against which, the resources of medicine have, hitherto, proved inadequate and unavailing.

The word hydrophobia signifies a dread of water, this being one of the most striking symptoms of that species of madness which occurs in man, after being bitten by a mad dog, or other animal, labouring under a similar disease. Some have given to it the more general term hygrophobia, or a dread of all liquids. Both terms are, however, highly objectionable, because derived from a symptom which, by no means invariably, or exclusively, belongs to this disease.

The old writers gave to it various other appellations, signifying a dread of air,—a dread of all things &c. from the circumstance, that the impression of a current of cool air sometimes excites terror, and, likewise, because the disease is marked by a singular degree of general timidity and distrust; but these are circumstances, more particularly observed when the disease occurs in the human subject. By modern writers, the disease is more generally and correctly named Rabies Canina, or canine madness. The French term it la rage.

The animals most frequently the subjects of Rabies, are those of the dog kind, including the wolf and fox; and some writers maintain, that although it may be received and propagated by other animals, yet it invariably originates with some of the canine race. (Hillary, Diseases of Barbadoes.)

It is observed by the late Dr. J. Hunter, that all domestic animals, birds, as well as beasts, are susceptible of the poison of the mad dog;—and indeed, we have, as yet, no fact to prove that there is any race of animals exempted from its effects. Whether every animal labouring under the disease is capable of infecting others, or whether this power is confined to a few only, we are yet to learn.

To the human species, the disease has been communicated from the bites of dogs, wolves, foxes, and cats. The dog, the wolf and the jackal have, by the inquiries of late naturalists, been ascertained to be of the same species, and hence, it is nothing surprising that the latter should be capable of communicating the infection, as well as the two former. The fox has, also, a strong affinity to the dog, and

is by Linæus and other authorities counted of the same genus; but the distinctions of natural history will not avail us here; for the cat, an animal of a very different genus, has often communicated hydrophobia to the human species.

Many other animals are said to have the power infecting others, by their bite, when labouring themselves under the disease; but the facts hitherto collected are very vague, and totally inconclusive on this point. In regard to the human subject; instances have been known of men, labouring under hydrophobia, biting their attendants and no bad effects have resulted. There are strong reasons for believing, that tetanus or the locked-jaw, has frequently been mistaken for hydrophobia, and has given rise to the accounts of the disease having proceeded from the bite of the cock and goose, the scratch from the claws of the cat, and similar histories.

Dogs are much more susceptible of the infection than the human species. Four men, and twelve dogs, were bit by the same mad dog. and every one of the dogs died of the disease; while the four men entirely escaped, though they employed no other means of prevention, than such as we see every day to fail. There is, also, an instance of twenty persons being bit by the same mad dog, of whom only one had the disease. (S. Cooper, art. Hydrophobia.)

The danger from the bite of a rabid animal will be various, as it happens to be inflicted upon a part more or less vascular; or as the teeth are more or less loaded with the poison. There is the greatest danger from bites on the face, and the symptoms come on soonest; bites of the hands, also, which are generally bare, are full of danger. In other

parts of the body, the clothing, by wiping the teeth, greatly lessen the danger of infection.

Wrong notions, of a highly dangerous tendency, are entertained, by the public generally, in regard to hydrophobia, as it appears in the canine race. The writer of the article *Dog*, in the new Cyclopedia, appears to have had most extensive opportunities of observing the disorder in dogs, having paid attention to more than two hundred cases. To his remarks, we acknowledge ourselves to be indebted for many of the following facts.

The peculiar symptom, a dread of water and other fluids, which characterizes the complaint in the human subject, has been applied to the disease in the dog, and has occasioned it to be called by the same name, hydrophobia. This is a palpable misnomer,—for in no instance does there exist any dread of water, but merely an inability to swallow it; dogs in a state of madness are, on the contrary, very greedy after it. This unfounded suspicion, has often conducted to a very fatal error;—it being the received opinion, that no dog is rabid, who can lap water, many have been lulled into a fatal security. Another equally false and dangerous idea has prevailed, that every mad dog must, of course, be wild and furious; but so far is this from being true, that in the greater number of instances, there is very little of that wild, savage fury, which is expected by the generality of persons. The disposition in the mad dog to do mischief, is rather an increased irritability, than an absence of sense;—in most instances, even those that are furious, acknowledge the master's voice and are obedient. The symptom which is, most frequently, the first observable in a mad dog, is a certain

peculiarity in his manner; some strange departure from his usual habits. In a very great number of instances, this peculiarity consists in a disposition to pick up straws, bits of paper, rag, thread, or the smallest objects, which happen to be upon the floor. This is said to be particularly common in small dogs;—others, again, shew an early peculiarity by licking the parts of another dog. In one instance, we are told, the approach of the disease was indicated by a very uncommon attachment taking place in a pug pup, towards a kitten, which he was constantly licking,—as also the cold nose of a healthy pug, that was with him; an attachment to the sensation of cold appears in many cases, it being very common to observe the affected dogs licking cold iron, cold stones, etc. Early in the disease, some dogs will eat their own excrement and lap their own urine. An early antipathy to strange dogs and cats, is very commonly observed, but especially to cats. As the disease advances, the affected dogs bite those with whom they are domesticated, and finally, the persons around them, but, except in a moment of irritability, they seldom attack the human subject. The irritability, which induces them to bite, is, as already observed, devoid of wildness; it is more like peevishness, than fury. A stick held up to them always excites their anger in a violent degree; and throughout the disease, there is generally a wonderful impatience of control, and the animals are with great difficulty frightened. It is all important to keep in mind the fact, that dogs affected with madness, from their quiet and apparently inoffensive manners, have even not been suspected of having the disorder, and have been allowed to run about, have been fon-

dled and even slept with. (See Mem. of Swedish Acad. 1777.)

The other symptoms of madness in the dog are, his becoming dull, solitary, leaving his master's house, or endeavouring to hide himself—suddenly snapping or biting with the smallest provocation. In the progress of the disease, his eyes generally become red, or inflamed, and a purulent discharge issues from the eyelids. Instead of barking, he often makes a dismal howl,—his ears and head hang down; he walks as if overpowered with sleep; frequently he will eat with even a voracious appetite; but, in general, the mad dog has a listless and melancholy appearance.

He now begins to pant; he breathes quick and heavy;—hangs out his tongue, from which and his lips he discharges a great quantity of frothy saliva;—his mouth is, ordinarily, kept open; his tongue assumes a leaden hue. He now becomes extremely anxious and impatient, and has an inordinate desire to gnaw every thing around him. If chained, or confined, he uses his utmost efforts to break loose, and if he succeeds, he wanders about seeking other animals to bite, particularly those of his own species. Sometimes, he walks slowly, as if half asleep, and then suddenly runs, but not always directly forward.

Very often he has the appearance of being palsied behind, and labours under an inflammation of the bowels, which causes him to set on his rump, seemingly in great pain. In the last stage, the preceding symptoms are greatly aggravated; he now becomes very feeble, his jaws drop as if paralyzed, his saliva runs in streams from his mouth, he wanders, or rather staggers about, with scarce the power of

biting, and at length, exhausted by the disease, generally dies on the fourth or fifth day after its commencement. A singular circumstance has been remarked in the mad dog, that on no occasion will he evince any symptoms of fear, nor will he cry out on being struck, or shot,—scarcely even in the agonies of death. It is said that all dogs have a dread of one that is mad, and will fly, if possible, on its approach. However courageous a dog may be, it is asserted, that when attacked by a rabid animal, he will cry out, and make every effort to disengage himself and escape, this may, in general, be correct, yet it is a fact, that some dogs will readily attack those that are mad.

It is very properly remarked by Thomas, that many dogs are evidently declared to be mad, which are not so in reality. "Should a strange dog happen to run with speed through a town, or village, all the dogs in the place will run after him; and he, to get clear, will snap at either man or dog that impedes his way; instantly the cry of mad dog resounds from all quarters; crowds armed with different instruments of destruction, pursue the wretched animal," which, however valuable and harmless, "falls a victim to the ill-timed rage of thoughtless ignorance."

The causes of this peculiar disease in dogs, are at present involved in much obscurity, and we have little else than conjectures upon the subject. We do not know whether rabies ever originates spontaneously in these animals, or whether it be propagated only by contagion. That the bite of a mad dog will communicate the disease to another, all are aware;—yet there have occurred instances, in which no such bite could have been incurred; many facts, indeed,

would seem to point out the communication of the disease by contagion. The celebrated sportsman, Mr. Meynell, we are assured, secured his dogs from the malady, by causing every new hound to perform a quarantine of two months, before he was suffered to join the pack.

Great heat has been supposed to cause the disease; but we are told by Hunter, that in the hot island of Jamaica, where dogs are very numerous, not one was known to go mad during forty years. M. Larrey, Bonaparte's principal surgeon, declares that in Egypt, where these animals are found in vast numbers, being held by the natives in veneration and never put to death, hydrophobia is entirely unknown. At Aleppo, also, where the dogs perish in great numbers from want of food and water and the heat of the climate, the disease never occurs. (See Larrey's Memoirs, vol. 2, and New Cyclopedia, art. Dog.)

In Mr. Meynell's account, it is asserted that madness never occurs in the dog from the heat of the weather—putrid provisions, nor from any cause excepting the bite. Mr. Gillman, however, endeavours to prove, that though the disease in dogs originates independently of particular climates, of putrid aliments, of deficiency of water, or of the worm under the tongue, yet it may originate without the bite of a dog affected with the disease, in the same manner as typhus fever originates in man; that is, by confinement, without exercise, in close, filthy kennels. He conceives that the success of Mr. Trevalyan, as related by Dr. Bardsly, in clearing his kennel of the disease, by changing even the pavement, after other means of purification had failed, affords presumptive evidence in favour of this opinion;

and, consequently, this author thinks, that the method of quarantine adopted by Mr. Meynell, will not be alone a sufficient preventive; he shews, from some facts reported by Mr. Daniel, that the poison sometimes lies dormant in dogs four, five, and six months,—and, consequently, he infers that the period of two months is not a sufficient quarantine, before a new dog is introduced into a pack. (Gillman on Rabid Animals.)

For hydrophobia, no remedy has as yet been found out. The moment, therefore, a dog is suspected to be mad, he should be carefully secured by a strong chain, but not immediately destroyed; when, however, his infection is positively ascertained, his speedy death becomes, at once, an act of humanity to the animal himself, and the only certain means to prevent his infecting others. A valuable dog being bitten by one that is mad, I have no doubt he might be preserved from the occurrence of the disease, if the wounded parts could be immediately and entirely cut out, or cauterized with a red hot iron; the surrounding hair being first shaved off, for some distance around the bite. In the human subject, the only certain remedy against the disease, is the complete excision of the wounded parts, or the removal of the poison by sucking the wound forcibly and for a considerable time. Experience would seem to prove, that the excision of the bitten part, at any time, previously to the general symptoms of hydrophobia making their appearance, will avert the disease.

The cruel and ridiculous practice, called worming, can in no possible manner tend to the prevention of madness in the dog.

Distemper

This is a disease which few dogs escape, and by which, when neglected, or improperly managed, a greater number of the most valuable of these animals are destroyed, than by all the other maladies to which the canine species are liable. It is not, however, confined to young dogs; though, in the greatest number of instances, it occurs before the animal is eighteen months old, yet dogs of all ages have been known to be affected with it: few indeed escape its attack at some period of their lives. Whether all dogs are naturally predisposed to this malady has not been positively determined, but it would rather seem to me, that the predisposition to it, is to be referred to a change in the constitution of the animal, the effect of domestication, in the same manner as the human subject is known to be subjected to certain diseases, from his state of civilization. The distemper would appear to be contagious and, like the small pox, to attack but once the same dog. Its exciting causes are generally supposed to be, a cold, worms in the bowels, unwholesome food, etc., while the affection itself consists in an inflammation of the lining membrane of the nose, extending to the throat, upper part of the gullet and windpipe, and from thence to the lining of the stomach and bowels. So frequently does the disease arise from catching cold, that its commencement is, very commonly, traced to the dog's being thrown into the water—or exposed to the rain, particularly during the cold nights of fall and summer.

In its commencement, progress, and symptoms, the dis-

temper is extremely various; sometimes attacking with a purging, at others with fits. In some cases, there is only a cough, while in others, a running at the nose and eyes is the only active symptom. The usual symptoms, however, which point out an attack of the distemper, are a running at the eyes and nose, dullness and languor, sickness at stomach, and a slight cough, these are succeeded by a purging; the running from the eyes and nose increases in quantity, and is finally changed from a slimy discharge, to pus or matter; there is also frequent sneezing, with a weakness in the loins, so that when the animal attempts to stand or walk, he staggers, and frequently falls. The disease continuing, a universal palsy comes on. Fits are very common during the course of the distemper, and when they follow each other, at short intervals, a recovery is scarcely to be expected. In many dogs, the disease proves speedily fatal from excessive purging—while others gradually waste away in flesh, so as to resemble skeletons before death. In the commencement of the disease, the bowels are in general costive—the nose pale and hot—and the animal loathes its food; in its progress, most generally, the glands about the throat and neck become swollen and painful.

Cure. In the commencement, emetics are said to be highly beneficial; they should be repeated daily, for the first two or three days. As an emetic, common salt has been recommended; a large spoonful, dissolved in three of warm water, being a dose; if this does not, however, puke, the quantity of the salt may be increased. The bowels should next be opened, but not purged; for this purpose, the best article will be Flour of Sulphur mixed up with milk or

molasses; one, two, or three tablespoonfuls in the proper quantity, according to the age of the dog. When the bowels are not much affected with purging, two or three grains of James' or the antimonial powders, given at night, have been found of advantage; but the following appears to me to be the best prescription; take flour of sulphur, cold drawn linseed oil, and salt petre, of each one ounce, and of crude antimony, (the black sulphuret of the shops), from a half drachm to a drachm; let these articles be well mixed together, and divided into four doses, one of which is to be given to the dog, from the commencement of the disease, every day, or every other day, according to circumstances. At the same time, the animal should be furnished with plenty of clean straw to lay on, and kept warm and dry, and be supplied with warm thin broth, milk and water, or indian gruel.

If the bowels become excessively purged, balls should be given to the dog, composed of equal parts gum arabic, prepared chalk and conserve of roses, with rice milk as food; or from five to fifteen drops of laudanum, according to the size and age of the animal, may be given every six hours.

If in the early period of the distemper, there exist much inflammation, tenderness of the throat, cough, heat of the nose, etc., there can be no doubt of the propriety of a full bleeding—which will, also be proper, if in the course of the disease, the animal exhibit symptoms of pain in the stomach or bowels, as also, when the head seems much affected; with considerable drowsiness, or stupidity; in this latter case, it is directed and, it appears to me, very properly, to shave the top of the head and apply to it a blister.

When there is considerable discharge from the throat and nose, in the advanced stage of the disease, balls made of balsam copaiva, gub guiacum and powdered chamomile flowers, may, probably, be productive of good effects. Mr. Beckford recommends an ounce of peruvian bark in a glass of port wine, to be given twice a day; in the case of his own hounds, he is said to have experienced its good effects.

Mr. Daniel (Rural Sports, Vol. 1.) informs us of his extraordinary success from the use of James' powders, in the following manner: as soon as the symptoms of the distemper shew themselves, a dose of the powders, well mixed up with butter, is to be administered, the dog having plenty of warm broth, or milk and water, and being kept perfectly warm and dry; two hours afterwards, another dose is to be given. If neither of these cause puking or purging, at the end of four hours, give a third dose;—should the two first doses operate, the third dose must not be given until the end of six or ten hours, according to the quantity of the evacuations produced. If the dog refuse to lap, he should be forced to take plenty of warm broth, or milk and water, a continuance of which, with warm and dry lodgings will complete the cure: as the animal's appetite returns, he is to be fed, at first, however, sparingly, with animal food.

The following remedies are, also, said to have been effectual in the cure of this disease: 1. one grain and a half of calomel, and five grains of rhubarb, to be repeated every other day; 2. four grains of turbith mineral, and one grain of tartar emetic, the dog having been first bled; 3. a teaspoonful of the syrup of buck thorn, made into a ball;

water gruel, only, being given as a drink while this treatment is being employed.

The mode of administering to a dog medicines in the form of balls, is to pull out his tongue, then to put the ball into his throat, as low down as possible; when the animal draws in his tongue, the medicine will slip down in spite of his efforts to hinder it.

The means of guarding against an attack of the distemper in young dogs, is to have them lodged at night, warm and dry; to keep them, in winter, from about the fire or stove; to feed them principally upon milk and bread, indian meal and milk, broth, etc., with a moderate allowance of fresh meat; and finally, to keep their bowels regular, by the occasional administration of the flour of sulphur.

It is proposed to inoculate young dogs with the distemper, by insertion into their nostrils, with a feather, or by introducing into a slight wound in their lips, a portion of the discharge from the nostrils of a dog labouring under the disease;—the pup being previously prepared, by a farinaceous and milk diet, and by occasional purges: of the feasibility of this inoculation, or the advantage to result from it, I cannot speak with any certainty.

It is said, that communicating to dogs the vaccine disease, will preserve them from the distemper. This is worth a fair trial.

Worms

Worms breeding in the stomach or intestines of dogs, cause to them much suffering; young dogs are particularly liable to be affected with them. Naturalists describe a va-

riety of different worms in the canine species, but as the effects they produce upon the health of the animal, are very, if not entirely, similar; we shall consider them all under the general denomination of worms.

The animal affected with worms has, commonly, a ravenous appetite, while at the same time he falls away and looks sickly; his breath is offensive; and his bowels irregular, his stools being sometimes thin and slimy, at others hard and dry: worms are very apt to produce violent fits and, occasionally, continued convulsions, under which the animal lingers for a time, and finally dies. The fits resulting from worms, are sometimes of a stupid character, the animal being senseless, and continually going round.

The cure of the diseases arising from the presence of worms, depends upon the destruction of these animals, or their entire expulsion from the bowels of the dog. To effect this, a dose of calomel and jalap, or of aloes will very often be sufficient. A tea-spoonful of turpentine, occasionally, will also be frequently successful. Should these fail, an ounce of powder of tin, mixed up with butter, may be given in three portions; or, pulverized pewter, seventy grains, and æthiop's mineral, sixteen grains, mixed in butter, may be administered three times a day, on every other day; the dog being kept warm, and from cold water. Whey or pot liquor may be given him two or three hours after the medicine, and should constitute his food, instead of meat, whilst he is taking the medicine. To prevent worms in dogs, requires that the animals should be supplied with pure fresh water—wholesome, but not too much food, and be allowed regular exercise, daily, in the open air.

The Mange

This is a disease which affects dogs, somewhat in the same manner as the itch does the human body; on the skin of the animal there first appears a slight eruption attended with intolerable itching, which causes the dog constantly to rub and scratch himself, by this means the heads of the eruptions are torn off, a scab is formed, and finally, an open sore. The hair very generally falls off from the parts affected. It is said that white dogs, and those having strong wiry hair are most subject to the mange. Different varieties of the disease are described, as, red mange, consisting in a red, scabby eruption over the whole body, very difficult to heal; the scabby mange, which breaks out in blotches about the back and neck and is extremely contagious. White dogs, generally, are subject to a variety of the disease that shows itself simply by redness and an intolerable itching of the skin. There is also a variety which attacks the toes, and another the ears of dogs. The disease under consideration originates from, either too high feeding, want of exercise, and an exclusion from the use of their favorite medicine, grass; or, from too little and unwholesome food, as carrion, etc., confinement, neglect of cleanliness in their kennels, want of pure water, etc.

The cure of the mange is to be commenced by removing the remote cause; if it arises from too high or gross living, by putting the animal on a more regulated diet—if from poverty, by increasing the quantity and quality of the food, —by cleansing perfectly the skin and kennel of the dog, by allowing him free exercise, and pure water, etc. Sulphur

should be given, occasionally, as a purge, and the affected parts of the skin rubbed with an ointment, made either of sulphur and hogs' lard, with the addition of a small portion of oil of turpentine; or, of sulphur, sal. ammoniac, and tar-lime-water; or, of train oil, one pint, oil of turpentine, half a pint, powdered ginger, one quarter of a pound, and gun-powder, finely powdered, half an ounce. When very bad, the affected parts should be rubbed with the following: sulphur, a pound, white hellebore, powdered, half a pound, train oil, a quart, and spirits of turpentine, a pint; or, white wine, half a pint, spirits of turpentine, the same quantity, salt petre, in powder, two ounces, and a quart of very strong beer, mixed together and made milk warm; this is to be rubbed in with the hand upon the skin of the animal, taking care of the eyes, and then dried by a fire, the dog being then put into clean straw: three dressings of this are said to be sufficient to remove the most inveterate mange. The following is, also, highly spoken of: white hellebore, powdered, six ounces, sulphur, half a pound, black pepper, ground, two ounces, oil of tartar per deliquim, two ounces, sal. ammoniac, powdered, one ounce, hog's lard, one pound, and olive oil, half a pint, mixed well together, a portion to be rubbed upon the diseased parts night and morning, for seven or nine days. The first day of its use, give the dog jalap, thirty grains, calomel, six grains, powdered ginger, three grains, conserve of roses, half a drachm, syrup of buckthorn, a few drops, form into a ball, which is to be given in a piece of fresh butter; two days after the last use of the ointment wash the dog all over, with soap and water. For the *Red* mange, anointing with strong mercurial oint-

ment is recommended—in the use of this application, however, great care should be taken lest injurious effects result. In the use, indeed, of all these ointments, the dog must be kept warm and strictly dry, and fed upon a light diet. When much heat and itching attend the disease, bleed and purge.

Fits

Fits in dogs may arise from various causes. They are an occasional symptom in the distemper. Sometimes an active emetic, a bleeding or a purge, will stop their progress: but very generally they are fatal. Worms often causes fits in dogs. Of course the cure, then, will depend upon the expulsion of the worms. A pretty active dose of calomel and jalap, or calomel and aloes should be immediately given. Confinement will, also, be the cause of fits—when a dog has been long inactive, or in a state of confinement, on being put into active exercise, he frequently falls into an epileptic fit. An active purge or glyster and perhaps a bleeding may do good. Costiveness will produce fits: treatment, the same as in those from worms. Cold water thrown over the dog, will often stop, or shorten, the present attack; and for their prevention, in future, the removal of their causes must be attended to.

Cholic

Two kinds of cholic attack dogs—the one arising from costiveness, and to be cured by active purges and glysters, followed when the bowels have been opened, by a mixture of castor oil, laudanum and ether. If the pain be very in-

tense, in a young strong dog, bleeding will be proper. The other species of cholic is the effect of cold — the dog becomes, suddenly, as it were, palsied in his hinder parts, with great tenderness and pain. Treatment, active purges, injections, and the warm bath; turpentine, or soap liniment, should be rubbed in externally; warm and dry lodging, and mild diet, are all important.

Inflamed Bowels

This may arise from costiveness, cold, or poison. When from costiveness, the inflammation is, generally, slow in its progress, and unattended with very acute pain; the dog has no evacuations, and pukes his food, even though eaten with an appetite. The treatment consists in active purging with calomel and aloes, glysters of thin starch, or flax-seed tea, a bleeding and the warm bath. When the disease has arisen from cold, the animal is affected with violent panting, great pain of the bowels, constant sickness and puking, with great heat of the belly, weakness, redness of the eyes, etc. Treatment, calomel internally, a large bleeding, glysters as above—and the warm bath; after which, the belly should be blistered. Inflammation from poison is marked by constant puking, pain, and frequent stools of a brown or bloody appearance, with coldness of the nose, paws and ears, etc. Medicine will be seldom successful. A large dose of castor oil may, however, be given, with frequent injections of mutton broth, or flax-seed tea, and the same, plentifully, by the mouth.

Inflamed Lungs and Chest

This sometimes occurs as an epidemic among dogs, and then destroys great numbers of them. It is generally violent and rapid in its attack, terminating, generally, on the third day, by causing dropsy of the chest, which quickly terminates in the death of the animal. Treatment, an early bleeding of from four to sixteen ounces, according to the age, size, and strength of the dog. Sulphur, as a laxative, the antimonial powders, as in the distemper; a blister to the chest, and for food flax-seed tea.

Sore Eyes

If from inflammation, the whole ball of the eye being red, swollen, and watery, wash frequently with cold water, or lead water. Purge with calomel and jalap, keep the animal in a dark place and on a low diet. If the inflammation is violent, bleed. Dogs are, also very subject to a soreness of the eye-lids, with redness and a watery condition of the eye. This is to be cured by smearing, once or twice a day, the eye-lids with an ointment made from equal parts citrine ointment, prepared tutty and lard.

Asthma

This is an affection of the chest, resembling asthma in the human subject, to which old dogs, who have led a lazy and confined life within doors, or who have become fat from high living, are peculiarly subject. It is sometimes brought on in these by an attack of cold. When affected with it, the dog has a short dry and wheezing cough, which

steals on almost imperceptibly, with a disposition to bring up something from the lungs, the cough at length becoming almost incessant and very distressing, and is accompanied with the discharge of a frothy mucus, and with moist eyes; after continuing thus for some time, there are occasional fits, strangulation, or great emaciation, by which the animal is finally destroyed. The cure is extremely difficult, especially if the disease be allowed to become habitual before it has attracted attention. The exercise of the animal should be regular, but gentle and long continued. His food moderate and light, principally of milk and vegetable substances, and without being exposed to too much cold or dampness, he should have free access to pure, fresh air. An occasional emetic may, probably, be of some benefit. One grain of emetic tartar, with two, three or four grains of calomel, we are told, is the best:—this dose is adapted to a small dog, "and may be repeated twice a week frequently, with great success, always with palliation." If the bowels are costive, give sulphur as a laxative.

Dogs are subject to various other diseases, as well as wounds and fractures, but it must be evident that a consideration of these, in a manner which could be serviceable, or even intelligible to the shooter, would lead us into details that would far exceed the limits to which this work is necessarily restricted.

It being, always, much easier to prevent disease, than to cure it subsequently to its accession, it behooves, therefore, every one, who is desirous of preserving the health of a valuable dog, to pay particular attention to the quality and quantity of his food, to his exercise, and to his lodging, for,

it is from improprieties in respect to one or other of these particulars, that most of the diseases of the canine race will be found to originate.

It is true, that in a state of nature, the dog is found to live, healthful and strong, upon almost any kind of food, but in a state of domestication, such important changes have taken place in his constitution and habits, that he will almost invariably suffer from unwholesome, too much or too little aliment. The food of a dog should, therefore, be sufficient to support the strength of his body, being adapted, in quantity, to his age and size;—it should consist of fresh meat, with a considerable intermixture of milk, bread, preparations of flour or meal, potatoes, etc.—the dog, at the same time, having free access to pure water.

He is extremely fond of gnawing bones, in which practice, after he is a year old, he may with propriety, be indulged, as this habit has, probably, some influence upon his health. Nothing tends more effectually, to destroy the good qualities of a dog, as well as his health, than too much confinement, particularly within doors; few dogs are worth any thing, who are brought up in the kitchen, stretched in cold weather before the fire, or beneath a heated stove, and hence the great difficulty of keeping these animals in the city, for while regular exercise is all important, "improper company," with the curs that crowd our streets, has, I had nearly said, almost as deleterious an effect upon the dog, as upon reasoning man. While the dog, therefore, has the free range of a large yard, he should, also, be frequently taken out in company with his master, great care being taken, that in these excursions habits of obedience be strictly preserved,

particularly in a young animal, preventing him from flying after poultry, hogs, cattle, etc.

In regard to lodging, a large ventilated kennel, liberally supplied with clean straw, and completely secured from cold or dampness, whether arising from the wet nature of the ground, or from the admission of rain, etc., appears to be the best. Cleanliness, in the strictest sense of the word, must be preserved in the kennel, by having it frequently cleansed, and the straw repeatedly changed; to the same intent, the animal should not be fed in his kennel, nor allowed to carry into it bones, portions of his food, etc.

It is asserted, by good authority, that substituting, during the summer season, oak shavings for straw as a bed for the dog, will prevent the breeding of fleas. This is worth a trial.

It is, likewise, said, that if the dog be rubbed with powdered chalk, and brushed and combed, once or twice a week, he will thrive much better; this procedure clearing his skin from grease, filth, and vermin, the animal will also be less liable to many diseases, particularly the mange.

Of cutting the ears, and docking the tail of dogs, I have said nothing, like worming, they are believed, from the best of reasons, to be not only cruel and useless, but absolutely injurious practices, particularly the first, which counteracts one of the very purposes nature has intended to fulfill, by the length of the external ear.

There is a species of insect common in woods, and among bushes, called the dog-fly, which are particularly troublesome to dogs by fixing upon their ears, etc., from which they can scarcely be driven without being killed. The sting of these flies is very severe, and produces a blister at the part

upon which it is inflicted. In external form, etc., the insect very much resembles the large flat black fly, so annoying to cattle. The best means of guarding the dog against the bites of these animals, is to anoint his ears and neck, during the summer months, before he is taken into the field, with tar, a solution of aloes in water, or the juice or decoction of some bitter or resinous plant: for this purpose the tops of the fir tree, the leaves of the walnut or chestnut, and of the various species of dock are recommended.

To a man of sense and humanity, it is scarcely necessary to speak against the brutal practice of kicking a dog on his sides and flanks,—striking him over the head and back with a heavy cane or stick, throwing at him when in a passion, stones or clods of earth, and similar practices. I have seen all of them pursued, and to the serious injury of the health and temper of the animal. If correction be necessary, it should be inflicted with such an instrument as will sting without wounding or bruising. However trifling this may appear to some, yet to the shooter, who knows the value of a good dog, and the trouble and labor necessary to make him such, nothing will be considered beneath his notice which has a tendency to ensure the safety, and the continued health and obedience of an animal so much sought after by all who deserve a place upon the list of "true sportsmen."

BREEDING

In this Country we have not bestowed the attention to this subject which its importance absolutely requires. In Great Britain and on the continent, there are those who make breeding and training of dogs, their occupation, and on many of whom every reliance can be placed; with us, however, every gentleman is obliged to breed his own dogs, or to depend on the liberality of his friends, or what is very frequently the case, on ignorant or dishonest dog sellers. Notwithstanding these drawbacks, so far as my own experience and the unprejudiced information of others extend, I am led to believe that our own, are quite equal to the European dogs, though generally by no means so well trained. The setter, in America particularly, appears to have more elasticity in his actions, than the English dog, and hunts with more sprightliness and vivacity.

In breeding it is necessary to watch the dog and bitch properly, both of which should be well bred, because, as it has been well observed, "a well bred dog may be considered at once half broken." The dog should be of a good size, head rather large than otherwise, but not too heavy, large nostrils, heavy drooping ears, full chest, straight legs, sound, fat and wide across the loins: broadness across the eyes indicative of a good nose; the bitch should have a strong frame, large ribs, and wide flanks.

A young dog ought not to be put to an old bitch, as the

DOWN CHARGE

offspring will probably be delicate and feeble, but the same objection does not arise to putting an old dog to a young bitch, though proximity of age is more desirable.

Much has been said on the subject of colour, and on which there is a great diversity of opinion. I have seen good dogs, both setters and pointers, of almost every variety of colour and, taking each dog as a representative of his colour, it would be difficult to decide which was the best; but it seems to be the present opinion, that dogs, particularly the pointer, of a liver colour and well spotted, or flea bitten, are generally preferable to any other, though, as before observed, dogs of other and opposite colours are to be found quite as good. White dogs are apt to be found good tempered and manageable, but rather delicate, and liable to injury, arising from thin skins and short hair, for this reason, they will not readily go into a cripple or thick covert.

Some sportsmen are in the habit of breeding in and in, that is, propagating from the same family, this practice is not to be encouraged, as experience has fully proved, that after a few generations, the dogs degenerate; this applies to animals of all kinds, not excepting man himself. The better way is to cross the breed, as much as possible, being careful however, to keep in good breed and never to cross the setter with the pointer; if you do, the offspring will, in general, partake of the respective bad qualities of the parents, without possessing any of those which make either the setter or pointer valuable.

The bitch will sometimes become proud before she is a year old, but she should not be put to the dog, before she is double that age; early breeding being injurious to her, and

the offspring, are not in general, so strong and healthy, as those of a bitch more advanced. Young dogs should not be confined at all, and old ones as little as possible, except in cities and large towns, as it makes them crooked legged, and otherwise deformed. Until they are fit to be hunted, dogs should be allowed little or no animal food, gross feeding makes them more liable to injury from distemper than light diet, and will at any time, affect their scent; some persons, will not, on any account permit their dogs to gnaw bones, but this, I think a mistake, as the lime contained in them, appears necessary to assist their digestion. Dogs confined and denied a bone occasionally, will greedily eat lime in almost any shape; I would not recommend that bones should be ordinarily made a part of their food, particularly young dogs, but for the reason before given, would recommend an occasional indulgence in that article.

Dogs should be housed in a comfortable kennel with plenty of clean hay or straw, and that frequently changed, otherwise, they will be troubled with fleas, and subject to the mange; but on no account kept in a stable; because, independently of the danger they are subjected to from being kicked or trodden upon: they are so offensive to the horse, that he will not lie down, whilst a dog is in or near the stall.

BREAKING

ON THIS subject, there is but little difference of opinion, and that unimportant, the only one worth noticing, is whether or not a dog should be taught to fetch the dead game. Those who are opposed to this practice, contend that the dog becomes apt to break shot, and to flush any birds that may remain, and that he will frequently acquire the habit of mouthing or biting them, especially wounded birds, which he is obliged to pounce upon in order to catch. On the other hand, those who favour this method of breaking, say that it will often happen, that wounded birds escape, unless the dog be taught to find and carry, and that birds frequently fall in places extremely difficult and unpleasant for the shooter to get at them, and that a dog properly broke, will not at all injure the game. Giving however, the arguments, on both sides, their due weight, I am inclined to prefer a dog only broken to find dead game, and not to fetch it.

The art of breaking and training dogs, is one of the greatest importance, and after an examination of all the authorities on the subject, I am of opinion, there is none in which it is better and more rationally handled than in Mr. Johnson's excellent book. I have therefore, taken the liberty to make free with the shears and give my readers a long extract from that book.

"In the first place," says he, "it is indispensably neces-

sary that the sportsman should procure dogs whose breed is unexceptionally good; as well bred dogs are more than half broke the moment you take them into the field. The dog is an animal possessed of an uncommon sagacity; in short, he has reasoning powers to a very great extent, which may be converted to the pleasure or the service of his master; yet, in this respect, dogs will be found to vary very much; and while some will appear to exhibit instinct merely, others will be found to evince a degree of acuteness very similar to reason. There is a countless variety of the dog tribe, many of the non-descript ramifications of which, with an ugly and diminutive form, seem to sink much below the general level of the canine tribe in sagacity, while the nobler kind appear to rise in the scale of importance in proportion as they are judiciously bred, and afterwards cherished by the fostering care of their human protector.

The most sagacious of all the varieties of this highly interesting animal is, without dispute, the Newfoundland dog. His olfactory organs are of the first order; yet, as from his heavy, long, and loose form he is unable to support the fatigue of a day's range, he, on this account alone, is ill-calculated for the shooting sportsman. Similarly important disqualifying observations would apply to most of the other varieties of the dog, till we come to the Pointer and Setter, which appear altogether most admirably adapted to the purpose for which they are so generally used. We may, however, remark that the mere pointing or setting is by no means confined to these two particular kinds; on the contrary, terriers, hounds, and all dogs inclined to hunt, may be easily taught to point or set, or, in other words, to pause

or stop, on their approaching game."* Indeed, there are few dogs given to hunting but will point naturally, in the course of a little time, which arises no doubt from the following reason: as a young dog ascertains his proximity to game, by his sense of smell, so on his near approach, he is eager to seize it; but finding, after repeated trials, that he is unable to accomplish his purpose, he becomes circumspect or wary, and will be observed to pause for a short space, and then make a sudden rush to secure his object. This pause is, no doubt, for the purpose of ascertaining, by his olfactory organs, the exact spot where the game is seated; and the observation of this very circumstance, there is not a doubt, originated the idea of the setting dog; the sportsman carefully improving, by education, a quality which he easily discovered would so essentially conduce to the pleasures of the field.

Taking it for granted, therefore, that all dogs which will range for game will naturally pause or set, yet none of the various kinds seem so quickly to adopt this sagacious maneuver as the pointer or setter; nor is any one of them every way so admirably adapted as an auxiliary to the fowling piece. Next to the Newfoundland dog, on the score of powerful instinct, or animal reasoning, may be ranked the Pointer; his countenance is open, intelligent, and expressive; while his speed, strength, and persevering spirit enable him to continue the chase for a length of time almost incredible.

The Pointer and Setter, though used for the same pur-

* A gentleman near Darby in Pennsylvania, had a bull-dog, which instinctively became a good setter.—*Editor.*

pose, offer, individually, a very different object for contemplation, either as regards their external appearance, or their mode of questing for game. The Setter is fleeter than the Pointer; and, as his feet are small, and much protected by hair, he has a decided advantage on hard ground, or in frosty weather; but, at the commencement of the shooting season, when the weather is oppressively hot, he suffers more from thirst than the Pointer, arising, no doubt, from his long, thick, and warm coat of hair, which, though extremely convenient in cold weather, nevertheless, exposes this generous animal to great inconvenience during the intense heat of the month of August, particularly on mountains where water is seldom to be met with. On the whole, the Setter is a hardy, high-spirited animal; but he is often found troublesome to break, and can only be kept steady by incessant labour, backed, but too frequently, by severe correction. For those who follow the diversion very ardently, and are out almost every day, the Setter will generally be found a valuable acquisition; but those who enjoy the fascinating amusement of shooting only occasionally, will find greater satisfaction in the more steady and better regulated exertions of the Pointer.

The Pointer is of foreign origin, and is known, with but slight difference of form, not only in Spain, but in Portugal, and also in France. The Pointers that have been brought immediately from Spain are heavy and clumsily formed; those from Portugal are somewhat lighter; while the French breed is remarkable for a wide furrow which runs between the nostrils, and which gives to the animal's countenance a very grotesque appearance. All the Pointers,

however, exhibit a very different form and character from the Setter: they are thick and heavy creatures, with large chubby heads, long pendant ears, and are covered with short smooth hair; nor do they always possess that generosity of disposition which is so distinguishing a trait in the character of the Setter; in fact, they are of little value till crossed with the generous blood of these islands. Yet the conjunction of the Setter and Pointer is by no means advisable, since the production generally unites the worst qualities of the two, without any of those requisites, perhaps, for which the two breeds are most highly prized. Sometimes, indeed, a first rate dog is produced between a Setter and a Pointer; but it rarely happens; the cross, at best, is never to be depended on; and for one good dog thus obtained, there will be found, on an average twenty very indifferent or bad dogs; while not the least dependence can be placed on the offspring of the very best animals thus obtained. The most valuable dogs are, unquestionably, those produced between the Spanish Pointer and the deep-flewed fox-hound or the deep-flewed harrier, particularly if the progeny incline much to the Pointer; unless indeed speed be more the object than acute olfactory nerves, when the lighter kind of hounds will be found to answer best. The Spanish Pointer has been already so judiciously crossed, and is arrived at such a degree of perfection, as to leave little to be desired in the way of experiment.

Pointers are very susceptible of education, are easily broke or trained, and not so apt to forget their lessons as the setter.

Having offered these preliminary remarks on the vari-

eties of the dog, I will now proceed to a consideration of the subject more immediately under discussion. A very mistaken notion has obtained currency, namely, that those dogs which it is difficult to reduce to the required subordination, ultimately prove, when thoroughly subdued, superior to all others. How such an idea could have become prevalent I am at a loss to conjecture; but I have not the least hesitation in pronouncing it erroneous. That there have been good dogs of this description I am willing to admit,—one, perhaps, out of a hundred; but it must be acknowledged, after all, that the steadiness of the very best of these hardy, headstrong dogs is seldom to be depended on; they are always apt to spring the game, particularly when hunted in company; and it is only by hard labour, or excessive correction, or both, that their mischievous impetuosity can be restrained.

The first object to be considered in training a dog is the animal's temper: some dogs require frequent and severe correction, while, with others, mild treatment, and even encouragement, are indispensable. The most philosophic patience is an admirable quality in a dog-breaker: as many otherwise excellent dogs have been ruined by ignorance and brutal passion.

Well-bred dogs generally begin to hunt at an early period, though it will sometimes happen (but not often) that a dog will continue so long before he manifests a disposition for hunting, as to induce a suspicion that he is good for nothing. Let no sportsman be too hasty in forming this conclusion. At the age of five or six months, or even earlier, you should allow your dog to accompany you when you

walk out, supposing it to be in the lanes or elsewhere; and, occasionally, lead him in a cord, or couple him with another dog. He may be allowed to ramble to a certain distance, so as not to be out of call; occasionally, making him come behind you at the word back. The fewer words used in each lesson the better, which should be always the same, of the plainest sound, as well as the most distinct from each other, as the dog is guided by the sound alone; any meaning beyond what the sound and tone convey is, of course, above the capacity of a quadruped. At this period, it will not be amiss to teach him to crouch at a piece of bread, or anything else you may think proper, and not to stir till he is ordered: this may easily be done by gentle correction when he does wrong, and by rewarding him when he has done right. A good time for this introductory lesson is before you feed him, and he should never be allowed to eat till he has performed his task in a satisfactory manner. The word down is short, and sounds well from the mouth, and is all that is necessary to make the dog crouch, except when he shows any unwillingness to execute what you desire, when sirrah! spoken in an angry tone, may perhaps produce obedience; if not, the whip should be administered with moderation. Further, it may be as well to teach him, at the same time, words of caution, such, for instance, as take heed; as well as of encouragement, as good boy; the latter should not be used profusely, but applied in the most judicious manner, as encouragement is very apt to induce a dog to commit errors. A plurality of teachers should, if possible, be avoided: one instructor being amply sufficient.

Whenever a dog is corrected, either at this period, or aft-

erwards in the field, he should not be suffered to leave you till he is satisfied that you intend him no further chastisement; for example, if a dog be guilty of so great a fault, when hunting, as to render a severe flogging indispensable, you should not allow him to run away immediately after the flagellation, but compel him to remain at your feet for some seconds or a minute, otherwise, you will not be able to catch him, perhaps, should he require a second chastisement. When a severe flogging is necessary, it is advisable to put a cord round the neck of the dog, by which the punishment may be administered more effectually.

After the dog has been thus brought under subjection, or reduced to the requisite obedience, at any period, from the age of eight to eighteen months, according as he is strong and healthy, he may be taken into the field, either with or without another dog, and suffered to hunt whatever he pleases, (except sheep or domestic animals), and, in fact, to run riot. Larks, as they so frequently present themselves, will, most likely, be the first object of his attention; these he will spring and chase very eagerly; if partridges come in his way, he will do the same, with this difference only, that his eagerness will much increase; it will be still greater should he come in contact with a pheasant; and if a hare happen to rise before him, he will not fail to chase, with all imaginable ardour, and will, most likely, open in the pursuit. In this way he may be indulged till such time as he has become so attached to the sport that he may be checked without the least danger of his being overfaced, and thus induced to blink his game, or be otherwise rendered shy.

In a short period you will perceive him draw more cautiously upon the scent; on approaching his object, he will pause even at a lark; but when a partridge happens to be before him, his pause or stop will be more steady, and his manner altogether much more earnest; and the difference of the object will be very clearly manifested in his countenance.* He should now be taken out with an old steady dog, and whenever he comes to a point, the word toho! should be used, and afterwards the whip, should the word prove unavailing. Whenever he sets, approach him at your regular pace, but seem not in a hurry, (as, if you run, he will be very apt to do the same) and stand by him a few seconds; if the birds do not rise he should be allowed to advance, by saying hold up!—be mindful, however, that he does not advance too rapidly, and in order to effect this, make use of words expressive of caution, as take heed! When the old dog points, the young one should be taught to back, which may be accomplished in the following manner:—as soon as the old dog settles to a point, supposing the young one happens to be at a distance, he must be stopped, as the moment he perceives the point, he would if left to himself, rush eagerly up: however, he must be prevented from so doing, by calling out toho! at the same time holding up your hand. If he obey not by gentle means, recourse must be had to the whip. By these means he will, most like-

* If, contrary to expectation, he should manifest no disposition to pause or stop, after having been taken into the field half a dozen times, every time he springs the game, he must be brought back to the spot whence it rose, and compelled to crouch; the word toho! must be angrily spoken and the whip used if, after repeated cautions, he should pay no attention.

ly, soon become very steady; for dog-breaking, if attended to at a proper period, and in a proper manner, does not give half the trouble that is generally supposed. Holding up the hand is the signal for the dog to back; and, in a little time, whenever he sees it, he will immediately stop, though he may be at the other end of the field, or at a considerable distance.

At the same time, he should be taught to quarter his ground in a proper manner, as well as not to break fence. In beating a field, care should be taken to give him the wind; or, at least, he should never be suffered to run directly with the wind: if it blow in his face, so much the better, but a dog will hunt very well with a side wind. The dog should cross about twenty yards before the shooter, and if, after running down the field, he should not cross up again at about the distance just mentioned, he should be called to or whistled, and a wave of the hand should direct him across the field; unless indeed he catch scent, when he should be suffered, of course, to follow it. In case of attempting to break fence, he should be instantly whistled to or called by name, in an angry tone, using at the same time the words, 'ware fence! This will, in all probability, soon produce the requisite obedience; but should he refuse to obey the whistle or call, the whip must produce what more gentle means are unable to effect. If he refuse to pay attention to the whistle, he should receive a few stripes, (more or less, according to the disposition of the animal) the whistle being occasionally used during the operation; and he must be continued to be so corrected, should he not return prompt and implicit obedience when called to.

Through such training he will soon become pleasingly tractable.

However, as some young dogs are alarmed at the report of the fowling-piece, it will not be amiss, on the game rising after having been properly set, to fire a pistol, which will render him familiar to the sound. If his terror should increase on the firing of the pistol, so as to frighten him from the field, the experiment should be entirely abandoned till the shooting season, when he should be coupled with another dog, or otherwise prevented from running away till a few birds are killed and shown to him. If a bird be winged, he should be induced to foot it, and even suffered to mouth it, which is by far the best method of reconciling him to the discharge of the fowling-piece.

We will suppose that the dog is already steady at partridge; yet if he happens to approach a hare, he will scarcely fail to rush her—at all events he will chase when she rises. In this case, he must be brought back to the place from whence he ran, and made to crouch as before described, using the words, 'ware hare! or 'ware chase!

Hitherto, I have supposed that the dog breaker has been engaged with a mild, good tempered animal, which will be easily rendered tractable by the means just described; there are, however, dogs of a very different description, which require a greater degree of flogging, aided by other coercive measures, in order to enforce that indispensable degree of subordination, without which, shooting, so delightful with well trained pointers, is rendered irksome and vexatious.

If repeated flogging, fail to accomplish the object of

the sportsman, recourse must be had to the trash cord, or rather drag-cord. This is a cord something like a clock line, about twelve or fourteen yards in length, to be fastened round the dog's neck, if in the fields; on the moors the dog will run with twenty yards, while twelve or fourteen will soon tire him in enclosed grounds:* the greater the length of the cord, however, that can be used with propriety, the better; the cord may be shortened as the dog becomes fatigued. By the help of this cord, you will be able to stop him whenever you please. We will suppose that he makes a point: should he attempt to run in, you must check him as smartly as possible, making use of the word toho! and the whip also if you think necessary. This cord will be very useful should the dog not come in when called, etc. If, after some little practice with the drag-cord, the dog perseveres in springing his game, or continues otherwise refractory, the spiked collar must be used. The spiked collar is merely a leather strap, through which are inserted a dozen or more small nails, the points of which should extend half an inch beyond the surface of the inside. On the outside a piece of leather must be sewed, over the heads of the nails, to prevent their starting back when the dog presses upon their points. This is to be buckled round the dog's neck, the points of the nails inward, and the drag cord attached to it. Thus, when it becomes necessary to check him on his attempting to run in, or behaving otherwise unruly, the admonition or rather correction, will be

* On moors, the cord is drawn over the top of the heath in a great measure, and therefore runs light; in stubble fields and rough grounds many obstacles render the dragging of the cord very hard labour.

more impressive; in a little time, his neck will be very sore, and he must be contumacious beyond measure if this mode of punishment does not produce the desired effect within a short time.

The most difficult part of dog-breaking is, perhaps, the reducing the animal to perfect obedience in respect to hares. In the first instance, a young dog will eagerly pursue larks or thrushes, or in fact any of the feathered tribe which he happens to meet with; the partridge being a larger object, and making considerable noise when taking wing, will be pursued by him with much more ardour; a similar remark will equally apply to the pheasant, which he will still more eagerly pursue: but very soon discover the attempt to be hopeless, he will shorten the distance of his pursuit, and ultimately abandon the chase altogether. Not so, however, with the hare; for perceiving that it does not leave the ground, but runs like himself, he will not very easily relinquish the hope of overtaking her, but will rush forward with ungovernable ardour, and, even when lost sight of, will continue to follow the chase by the nose. But there are few dogs which may not be rendered steady in respect to hares, by the means which we have pointed out; and that, where hares are numerous, much sooner, of course, than where they are seldom met with. There is one effectual mode of reducing a dog to obedience in this respect, should the whip, the drag-cord, and the spiked collar fail of the desired effect. For this purpose a living hare should be procured, to the neck of which a cord should be fastened: to the other end of the cord (which may be six or seven yards in length) should be attached a wire,

which wire should be thrust through the snout or cartilaginous part of the dog's nose. The hare will, of course, spring forward at the sight of the dog, which will not fail to cause the most acute pain to the latter; the whip should be applied at the same time, accompanied with the words, 'ware hare!* This may be regarded, perhaps, as the excess of severity, and should never be resorted to but when all milder means have been repeatedly tried in vain. To prevent an obstinate dog chasing hares, I have sometimes seen the fowling piece used as a remedy. It may be regarded as a desperate one, which, though it will generally have the desired effect, should be used with the utmost circumspection. If a dog is shot at, and care is not taken that he is at a sufficient distance, as well as to hit him above the rump, you will run a great risk of killing him.

In the earlier part of these remarks, I have mentioned mild-tempered dogs. It will be requisite here to observe, that well-bred dogs are occasionally met with so very shy as to require encouragement rather than correction: dogs of this description may sometimes prove excellent: but I must confess I do not like to see a shy dog. Animals of this sort should never be taken out with dogs that need much checking or flogging, as the very sight of the whip alarms them to such a degree that they will not stir from behind you. Nothing is more difficult than to manage very shy dogs; they must be encouraged to hunt; and if they commit an error, the means of correction are difficult, and sometimes impossible: the least severity will most likely

* On all occasions of correction, the requisite word should uniformly accompany the punishment.

make them blink* their game; and when once this habit is contracted, it will require more than ordinary pains to eradicate it. Many young dogs will be much alarmed at the report of a gun; and yet, when reconciled to it, prove excellent. Few shy dogs are very prizeable; I never saw a good one.

As I have spoken of the various methods to be employed to render a dog steady at the point, to range, and also to back, I must observe, in this place, that a dog should never be suffered to break fence; or, in other words, to leave the field till you are ready to accompany him, as much mischief may ensue from his being suffered to ramble out of sight, or to a great distance. On his attempting to break fence, the whistle should be used, the dog should be called by his name, (in an angry tone), followed by the words, 'ware fence!—the whip, etc., to be resorted to, as in other cases, if necessary to procure obedience.

Generally speaking, as little noise as possible should be made. The voice or the whistle should never be used, but when absolutely demanded: the dog will thus hunt steadier; and if you accustom him to the motion of your hand, he will regularly look for the signal whenever he is at a loss.

It is thought by some, that dogs broke on the grouse mountains are superior as to ranging: this is doubtful, if not a mistaken notion altogether. In this respect, much will depend upon the animal himself.

Young dogs in general hunt with their noses closer to the

* Blinking is when a dog finds game, and, on being spoken to, draws off, and runs behind you, and frequently without being spoken to.

ground than old ones, and are apt to puzzle on the scent a considerable time after the game has left the spot. A little practice will, however, most likely remedy these defects: if not, recourse must be had to the muzzle-peg, an instrument very well known amongst sportsmen, but which I will, nevertheless, describe. The muzzle-peg is merely a piece of wood hollowed out and formed at one end so as to fit or receive the under jaw of the dog. From the dog's nose to the other end, projecting about nine inches, is merely a round stick rather thicker than a man's thumb; though some persons, instead of one of these round projecting sticks, prefer two, forming an angle with the dog's nose. At the upper end of that part which is placed under the dog's nether jaw, two longitudinal holes or slits are made, through which a strap is inserted, which is buckled behind the animal's ears; while the other end of the thick part of the muzzle-peg, or that which comes under the canine teeth, or fangs, is perforated with two holes, through which a leather thong is drawn, and tied immediately behind the fangs just mentioned. With this instrument, so fastened, the dog may be hunted without the smallest injury. At the first putting on, however, he will use every effort to rid himself of so disagreeable a companion, nor will he hunt till he has satisfied himself of the inefficacy of his utmost exertions to get free from this unpleasant restraint. At length he will become familiar with the instrument, and run with it as unconcernedly as possible; and it will make him carry his head well up, as well as prevent him chopping young hares, or mouthing in any way. A dog that rakes (that is, runs with his nose close to the ground),

and follows his game by the track, will generally spring it. Whenever, therefore, a young dog is seen to follow the track of a partridge (down wind in particular) he should be called to in an angry tone, hold up! he will then become uneasy, going first to one side and then to the other till the wind brings him the scent. If, after a short period, he should persevere in keeping his nose to the ground, and in following the track, recourse must be had to the instrument which I have just described.

Grouse, partridges, or any kind of game, lie much better to a dog that winds them, than to one which approaches by the track. The dog that winds the scent approaches the game by degrees, and that more or less as he finds it wild or otherwise, which he is unable to discover by the scent which is emitted; and though grouse or partridge see him hunt around them, they will be much less alarmed than when they observe him following their track, and suffer his near approach; or, in other words, lie well. The reason seems evident:—the dog, I apprehend, is seen by the birds (generally speaking) as soon as he enters the field; or, at all events, at a very considerable distance; and the moment they perceive him approach by the track, they take alarm, supposing themselves discovered, or, at least, very likely to be discovered; but watching, as they assuredly do, the motions of the dog, and observing that he does not follow the track along which they have run, they conceive themselves undiscovered, and thus allow the dog to come to a steady point. It may, moreover, be further remarked, that a dog which carries his head high will always find the most game, to say nothing of finding it in a handsome style.

A young dog should be kept regularly to his work, if possible, until he becomes quite staunch. Great care should be taken with him the first season he is shot over, as it seldom fails to determine his worth: at this period, numbers of otherwise valuable dogs are ruined by improper treatment, particularly by ignorant, passionate game-keepers and dog-breakers: no fault, however, should be allowed to escape correction or reproof. I do not mean that the dog should be flogged for every trivial mistake, but that the most trifling error should be noticed by sounds or symptoms of displeasure; and, proceeding in this way, you should administer correction according to the degree of crime.

We will suppose the young dog broke, and taken out to put into effectual practice all his previous instruction. On the first shot, particularly if the dog see the bird fall, he will be very apt to break away, in which case he should be brought back to the spot whence he had run, and there making him lie down, call out down charge! He should be compelled to remain in that position till the gun is reloaded; and the disposition and temper of the animal should be the rule and guide of correction. A well-bred dog will generally become perfect in this lesson in a very short period.

It sometimes happens, however, that a young dog will testify every symptom of alarm on the firing of the fowling piece:—will, perhaps, run home, and be with difficulty brought again to the field. When this occurs, I consider it a very unfortunate circumstance, as it will frequently require no ordinary pains to free the dog from this unnecessary fear. There is no better mode of effectually remedy-

ing the evil, than by convincing the animal that the discharge of the fowling-piece is intended for a very different purpose than to create alarm. He must therefore be brought back, and compelled to remain in company with the sportsman: he must, in fact, be led on a cord, to prevent his running away again; and if an attendant be not in the field, the sportsman may tie the cord around his own body. A few birds should be killed over him as quickly as possible, which should be shown to him, and he should be allowed to mouth them, if he appears inclined to do so: if a bird happens to be winged, he should be enticed to foot it;—thus he will very soon comprehend the true intention of the fowling-piece; his fears will subside; and he will shortly manifest as much anxious, joyful expectation at the sight and sound of a gun, as he previously testified alarm and terror.

Some persons accustom their young dogs to the report of fire-arms at a much earlier period than when taken into the field; in fact, when they are very young. Certainly, if they endure the report of a gun or pistol at this early period, there can be little dread of their taking alarm when brought into the field; but if a very young dog or whelp takes fright on the report of a pistol or gun, his fears will become so rooted that much greater difficulty will arise in completing his education than in the case I have before stated. In fact, all firing of guns or pistols near him should be cautiously avoided, as a practice of this sort will but increase his alarm, unless, indeed, it were daily, and almost incessantly, resorted to. The dog must be regularly broke, and, when taken into the field with the fowling-piece, treated in

the manner I have described above. It is highly important to convince the dog that the fowling-piece is for the purpose of killing the game, which he is to find, and this cannot be done when shooting merely to accustom him to the sound, as no object is thus placed before him. For the same reason, I do not strongly recommend the practice of teaching dogs, when very young, to crouch in the lanes, etc., when you happen to be walking out, as the animal cannot be thus aware of the ultimate intention of his master, or conscious of the object for which he is compelled to become prostrate: this method, in fact, teaches the dog to crouch too much, and, on that account, I never practise it, or, in other words, force my pointers to endure such abject and unmeaning servitude.

Having thus gone, as plainly as possible, through what, for the sake of distinction, I will call the regular rules of dog-breaking, I will finish this long essay by a few desultory or general remarks, which will, I trust, be equally useful, and, at the same time, serve the purpose of collateral illustration.

In the first place, then, I would advise gentlemen to break their own dogs, wherever such a plan is easily practicable, and agreeable to the taste of the sportsman. Dogs thus broke, and never suffered to go out but in company with the person who trained them, will infallibly be superior to all others. They are thus accustomed to obey one person only; they become perfectly familiar with his mode and manner, and, after being shot over one season, never afterwards give the least trouble. If dogs are lent from one to another, or become subject to many masters, they

cannot be expected to be perfect. For instance, I will suppose I have trained a dog, have shot over him several seasons, and he has, at length, become perfect master of his business; I lend him to a friend for one day, as good a sportsman too, as myself; the dog on being taken into the field, and perceiving a stranger, is unwilling to acknowledge his authority; the mode and manner of my friend, too, are different from mine, and, consequently, unlike that which the dog has been accustomed to; in fact, the sportsman and the dog do not perfectly understand each other, and a quarrel ensues, the sportsman succeeds, perhaps in reducing the dog to obedience; but the latter returns home, in some measure a different animal; he has committed various mistakes in the course of the day, most likely, and, on next going into the field, his own master will not fail to perceive that his dog is not the same, but requires, in some degree, training anew.

The less a dog is spoken or whistled to, the better. Whenever a wave of the hand or a motion will answer the purpose, the silent signal is to be preferred to noise; and those who are well acquainted with grouse shooting will feel the force and propriety of this remark. I have often been surprised at the distance at which the human voice, in common conversation, may be heard on the moors, down the wind:—grouse will bear noise less than any other game.

A well-bred pointer seldom requires excessive correction. Setters, on the contrary, are more unruly; and, generally speaking, render frequent flogging indispensable; they are, however, valuable where plenty of employment can be given; but where incessant labour is not called for, the

pointer is far preferable. However, no dog should be corrected in a passion; nor, after being flogged, should he ever be suffered to run away or leave the sportsman, till he and the dog become reconciled to each other. I have seen foolish, passionate men let their dogs run away immediately the flogging is over, and aim another blow at them as they are going away; nothing can be more censurable; for, when the dog next commits a fault, and you wish to chastise him, he will not suffer you to approach sufficiently near to lay hold of him. Therefore, after correction, he should not be suffered to move, till by a word or two of caution, spoken in a mild tone, his alarm is dissipated. If a dog, either from strength or disposition, becomes difficult to chastise, by first tying his legs together, the sportsman will have perfect command over him.

The best dogs may sometimes make mistakes, on bad scenting days, for instance; or if they happen to run down wind, particularly when it is blowing strong. On such occasions, it would be cruel to flog the dog, though the words expressive of caution may be used, spoken in an angry tone.

Well-bred pointers, if taken into the field at the proper period, will, in general, require little breaking; they will often point and back of themselves, and, in fact, give the sportsman much satisfaction with little trouble.

The dog that first finds the game should always go up to it: and on no account should another be suffered to pass or run before him. It is like snatching his well earned reward, to say nothing of the confusion which must ensue from such a culpable practice.

I have seen dogs shot at for the purpose of rendering

them steady, and particularly to prevent them from chasing hares; I cannot say I admire this method: it can only be had recourse to with hardy, head-strong animals; as to shoot at a young timid dog is to ruin him at once. It is a dangerous method at best, nor should it ever be resorted to but when the dog is at very considerable distance.

A pointer or setter should never be named Carlo, Sancho, or, indeed, any name ending in o, as the word toho is so frequently indispensable, and, ending in the same sound, is apt to cause misunderstanding and confusion. A dog's name should consist of one expressive syllable, which comes forcibly from the mouth, such as, Nell, for instance, and, when more than one dog is used, their names should sound as differently as possible.

It but too frequently happens that young dogs manifest an inclination to hunt and worry sheep, which must be instantly corrected. If a severe flogging have not the desired effect, the dog should either be tied to a strong ram, leaving a sufficient length of cord to allow the ram to make a run; or they should be confined together in a barn or some building. Flog the dog till he cries out, making use of the words 'ware sheep! The ram will not fail to commence a furious attack upon him, and will butt him most violently. They should be kept together for twenty minutes; the ram will not fail to continue his butting, and it may not be amiss to flog the dog several times during this period, making use of the words just mentioned at the same time. This will, most likely, prevent the dog ever looking at sheep afterwards, unless, perhaps, where he has absolutely bitten them before this system of correction was put in practice, in

which case, I am not aware of any mode of punishment or correction that can be depended on: for, although the dog may not even notice sheep in your presence, yet he will, nevertheless, be very apt to steal away, as opportunity may offer, for the purpose of depredation:—when once dogs have tasted mutton, they are never to be trusted. Indeed, I have seen an instance or two, where the dog, after being a little butted, has fiercely turned upon the ram,* which he would have torn to pieces had he not been prevented; but a circumstance of this sort so rarely occurs, and, in the instances to which I allude, the dogs were grown rather too old to be cured by this or any other mode short of confinement or death. If a young dog look earnestly at, or set, a sheep, he should be corrected; and, if you find him repeat it, have recourse to the ram, as by far the most effectual

* On this subject, Beckford relates the following anecdote: A late lord of my acquaintance, who had heard of this method; and whose whole pack has been often guilty of killing sheep, determined to punish them, and to that intent put the largest ram he could find into his kennel. The men with their whips and voices, and the ram with his horns, soon put the whole kennel into confusion and dismay, and the hounds and ram were then left together.

Meeting a friend soon after, "Come," says he, "come with me to the kennel, and see what rare sport the ram makes among the hounds; the old fellow lays about him stoutly, I assure you, egad he trims them, there is not a dog dares look him in the face." His friend, who is a compassionate man, pities the hounds exceedingly, and asked if he was not afraid that some of them might be spoiled? "No, d-n them," said he, "they deserve it, and let them suffer." On they went,—all was quiet,—they opened the kennel door, but saw neither ram nor hound. The ram by this time was entirely eaten up, and the hounds having filled their bellies, were retired to rest.

mode that can be adopted. A dog should be corrected, in fact, the moment he is observed to manifest the slightest inclination even to notice sheep; as he will, if not checked, first look and set, then chase, and ultimately, worry them.

As to poultry, the evil is not of so much magnitude, nor the disposition to worry it so difficult to subdue, as when sheep are the object; besides, poultry, by being generally about the house or premises, afford better, as well as more frequent, opportunities of observation. Young pointers are very apt to make their first essay, as it were, by worrying chickens, or pigeons, where they happen to be very tame. Early and severe flogging will, however, generally remedy the evil; if not, tie a fowl (a living one, is the best, on account of its fluttering), to the dog's tail, and tie it in such a manner, either by a cleft stick or otherwise, that it may give the dog considerable pain. Take him to a place some distance from his kennel, and, after giving him a few smart strokes with the whip, let him loose, and he will seldom fail to run home, howling all the way, (just as if a tin kettle were tied to him), and terrified beyond measure. He should, however, be followed, dragged from the farther end of his kennel, in which he will, no doubt, endeavour to hide himself, and be again well flogged; and the fowl, being taken from his tail, should be buffetted about his head.

THE POINTER

THIS dog is said to be of Spanish origin, but since his introduction into England, has greatly improved in those qualities which may make him so serviceable to the shooter.

In Spain, this dog is low, squat and heavy, somewhat resembling the bull-dog, but very delicate and easily tired down; in France, they are generally black, and have what is called (but very improperly) a double nose, being nothing more than a small crease or furrow between the nostrils and through the tip of the nose.

Great pains have been taken in improving the breed of this dog, and very justly, for without strict attention, in that particular, they are very apt to degenerate, and they are well worth all the care and trouble they require.

The Pointer, is remarkable for his docility, and his aptness in receiving instruction, being much more easily broken, than the Setter, and will retain it longer: for that reason, he is to be preferred by the shooter who goes out but seldom, as he requires less correction, and is not so headstrong and impatient, as the setter.

A large dog is to be preferred to a small one, particularly when the hunting is rough, and is the better of being light framed: as to colour, liver brown, or white, is generally considered best. Many shooters prefer the white dog, as he is more easily distinguished in a cripple or covert,

than the brown, but, at the same time, he is sooner observed by the birds, which will certainly not lie so well for him, as to a dog of a dark colour.—It is said, the white dog has the better nose, and that he hunts with more ingenuity than the coloured; of this fact, however, I am not particularly assured; as has been before remarked, an objection arises to that colour, which, in this country, is an important one, on account of the dog being generally very thin skinned.

THE SETTER

THIS dog has not been in use many years and is said to be the offspring of the English blood-hound, and the land spaniel or springer: of this, however, considerable doubts are entertained, in as much as a dog very much resembling the English setter, in appearance and habits, has been found in Persia, and is there used to find the partridge and pheasant; this doubt might be easily settled by making the experiment with the Talbot, or blood-hound, unless Mr. Johnson be correct, who contends, that the latter breed of dogs, is now quite extinct.* The setter is a much more handsome dog, than the pointer, and will bear hard hunting much better, and in that particular, has a decided advantage over him for shooting in this country. His skin is thicker and more strongly coated than the pointer, and he will cheerfully go into a thicket or cripple, where a pointer dare not thrust his nose. His feet, like those of a springer, are defended by the hair between the toes, which extends around the ball of the foot, and

* *This* is a dog, used by those men in the interior of Pennsylvania, who follow hunting for their livelihood, which, from the description we have of the English blood-hound, would seem very nearly allied to that dog; they are used to follow the scent of the deer a few yards in advance of the hunter, and as they do not open, will lead him up to the spot where the animal is feeding or crouching, and if it be wounded are sure to regain it.

renders him less liable to injury from hard or sharp substances, on which, in grouse shooting, especially, he will be obliged to tread. He will also range faster than the pointer, and is not so easily fatigued, but at the same time is more ungovernable, more difficult to break in, requiring more correction, and unless well broken, is not so steady on the stand, or shot.

Which of the two has the better nose, is doubtful, if there be any difference at all—some give it to the pointer, but that decision may have been formed in error, arising from the circumstance of the pointer showing a greater disposition to set on places, which have been but lately left by birds, or where they have roosted, which places, the setter will not notice; whether this arises from a deficiency of scent, or from possessing it in a greater degree than the pointer, cannot be easily determined: Mr. Thomas thinks it can be only ascertained, by observing which dog finds most birds on bad scenting days, he says the setter is the better at recovering a lost bird, or footing a wounded one.

From the thickness of the coat of the setter, he is naturally kept warmer than the pointer, and consequently requires more water; gentlemen who shoot on the grouse plains, with setters, should therefore, be liberally supplied with that element.

THE SPRINGER, LAND SPANIEL

THIS highly useful and interesting little dog, is not so extensively used and propagated, as his value deserves. I do not know, that I have ever seen half a dozen real thoroughbred springers in my life, and those were all from a dog and bitch, imported by a gentleman in Frankford: there are several varieties of the spaniel, but the proper cocking or springing spaniel, is a small dog, generally liver coloured with white long hair, somewhat curled, remarkably long and large ears, much larger than those of any other dog, in comparison with their respective sizes; the feet like those of the setter, hairy between the toes—the well bred dog will have a considerable tuft of hair, like the crest of a fowl, on the back part of the head, which gives him, when old, a somewhat singular appearance.

These dogs, are remarkable for their docility and good temper, sprightliness and activity, no dogs hunt with greater vivacity, or better judgment, in a cripple, and few will endure as much fatigue.

I saw a dog of this kind, which would set cock very well, and have heard of others, which would stop for a considerable time, at a partridge; but their principal use, in this country, is for cocking. They should be taught to keep within close gun shot, and should open, when the

game rises, and not before: if they go whimpering on the scent, as many do, the bird will be apt to flush before the shooter gets near it. This dog will flush every kind of game as soon as he gets upon it; and, for that reason, can be used only in thick covers, where he is obliged to hunt out of sight of the shooter. Many sportsmen use the pointer and setter both for cock shooting, having them trained to flush that bird, this practice answers pretty well, but is liable to the objection, that the dogs frequently acquire bad habits, and when first hunting partridges in the fall, are very apt to flush. Some sportsmen, when using the springer in close covers, attach a small bell to his neck; this will answer when the dog is unruly, and will not come in at the call, but at the same time, it gives the game notice of his approach. These dogs, are very subject to fits, loss of smell, bad colds, and many other diseases, and are in the main, perhaps, more liable to diseases than any other dog. When crossed with the setter, or pointer, the offspring, is but of little use; not possessing the good qualities of either stock.

GAME

THOSE birds which are designated by that appellation in this country, are the partridge, wood, or ruffed grouse, or pheasant, the true grouse, the wood cock, snipe, rail, the swan, wild goose, and almost all the wild duck family, with the wild turkey.

The curlew, plover, and nearly all the snipe species, are, perhaps, entitled to be ranked among game birds; but those which are shot with a dog, are the most interesting to the sportsman, though many others afford considerable diversion. Game of any kind, in the United States, is less abundant than formerly, owing to the increase of population and the extension of our settlements; the severe winters we had some eight or ten years since, had also the effect to limit their numbers, but the change in that season for four or five years past, has caused them to increase considerably, particularly the partridge; a severe winter, especially if there be much snow, is destruction to this bird, independent of the difficulty of finding food, and the consequent diminution by starvation; it is exposed to its enemies, the hawk, fox, mink, weasel, and other vermin; and more particularly, to the sneaking pot hunting shooter, who at one full sweep, will destroy a whole covey; a practice disgraceful to those who pursue it, but which is not so much followed as formerly.

The Partridge

This bird is not only common to the United States, but is found from one extent of the continent to the other, without the slightest variation in size or plumage, except in the extreme northern regions, where in common with most other birds it becomes white in winter.

Wilson seems to have been at a loss to give this bird a correct name; and indiscriminately calls it the partridge or quail; he, however, gives no reason for so doing, other than that in the New England States, it is known by the latter appellation. That the bird we call the partridge, is not the English partridge, there can be no doubt, nor is the partridge of England the French partridge; but, it does not follow, of course, that they may not be varieties of the same species, and consequently entitled to the same name. Our partridge differs from the English in size, being full one-third smaller, and somewhat different in plumage; the call is said to be totally different, but the shape and habits are precisely the same, with perhaps this difference, that the early brood, in this country, have a disposition to migrate to the nearest large stream of water, but only for a few miles; this has led some to suppose, that our partridge and the English quail are the same bird. The quail is, beyond doubt, a bird of passage, it leaves England in the winter entirely, and many of them cross the Mediterranean, at and near the straits of Gibraltar, whilst on the contrary, the partridge cannot fly a mile at one flight; they also differ in other respects, particularly, that the quail seldom or never lays more than five or six eggs, whilst the partridge will

have from fifteen to twenty-four—neither do they correspond in colour, though something in size.

The partridge is nine inches long and fourteen from one extremity of the wing to the other, with but little difference between the sexes, as to size; the only external variation, is in the colour of the chin and side of the head, that part being white in the male and yellow in the female. The time of incubation, is four weeks, and the young leave the nest as soon as hatched. If a nest is broken up, or the bird forced to leave it, she will lay again; and instances have been known of their laying three or four times during the season; they will also lay in one another's nests, until they augment the number of eggs greatly. I recollect reading an account of some forty or fifty eggs being found in a nest somewhere in Chester county. The bird seems somewhat dependent upon man for subsistence; its principal food being grain of different kinds, particularly buckwheat, also grass seed; they rarely keep in the wood, unless when much harrassed by the shooter, and in the winter season, will come to the stack yard; from this circumstance, it would be supposed, that they could be easily domesticated, but out of the numerous attempts which have been made to effect that object, few if any have entirely succeeded. Wilson tells us of a friend of his, who had two young partridges, which had been bred by a hen, and when abandoned by her, took up with the cows, and would follow them to their pasture, and regularly return with them in the evening; when winter came on they took up their quarters in the stable, and remained with the cows until spring; he also informs us, that partridges have been known to lay in

the nest of the domestic hen, and that they have hatched her eggs, the young of which, partook of the wild nature of the partridge in some degree. The note of the partridge, in the spring and summer, is very different from that of other seasons, somewhat resembling the articulation of the words, "bob white," with a particular emphasis on the I in the word white; in the autumn and winter, they have a quailing cry, which like the other, is very easily imitated, and by which many of them are lured to certain doom by our qualified poachers, who only shoot for the market or the pot. Like the wood cock, the partridge shows great ingenuity in protecting her young from an enemy; when discovered, she will seldom fly more than a few feet at a time, and will affect lameness, fluttering on the ground, and using every artifice to engross the whole attention of the intruder, until the young are secured; which being done, she will fly off to a considerable distance, and as soon as the danger is over, return and collect her brood together:—they are very fond of sunning themselves by the side of a bank, particularly if there be a bare place in which they can nestle and dust without being disturbed.

They begin to congregate about the beginning of September, and it is very remarkable that, all those near to rivers, will be seen to make towards them; where if not destroyed, they will remain for a few weeks, and then return to their native haunts. The proper season for shooting partridge is, from the first of October until the first of January.

This bird has numerous enemies, and were it not for its fecundity, would soon be extinct: independent of its greatest enemy man, the fox, mink, weasel, and other vermin de-

stroy great numbers; the long winged hawk makes great destruction among them in the early part of the season, and the kite never fails to improve every opportunity to lessen their numbers:—severe winters tend more to destroy this bird than any other cause, by exposing them to their enemies and depriving them of food. Whole coveys have been found starved to death, and covered with snow. They are easily snared or trapped, and can be driven into a net by persons on horseback, in this way whole packs are taken at once. The partridge is considered excellent eating, and generally sells in our market from six to twelve cents apiece; the facility of taking them by snares and traps, and the high price they sell for, brings great numbers to the markets of our large towns and cities.—The setter or the pointer are the only dogs which can be advantageously used in shooting this game, though the springer may answer a good purpose when the bird keeps in thickets or cripples.

Wood Cock

This bird, like the partridge, is to be found in most of the states, and has a different name in every one of them—in some places it is called the snipe, in others the big snipe—the red snipe—the mud snipe, and a variety of other misnomers. From a careful examination of prepared subjects and drawings, I can discover little or no difference between the American and English kind, except in size, the English wood cock weighing from twelve to fourteen ounces, whilst the American rarely exceeds eight or nine;—it is a singular fact that, the female is larger; the male of the latter weighing only five or six ounces.

They arrive in Pennsylvania early in March, (though some remain when the winter is mild, the whole year), and commence laying in a short time after their arrival: the nest is very simple, being nothing more than a few dry leaves and grass, collected together in a very careless manner—they lay four or five eggs, of a clay colour, sprinkled with brown spots. I have heard of nests being found as early as February, these birds must have wintered with us. They feed principally at night, and prefer a moonlight night to one that is dark; as it is well ascertained, that the bird will lie better the day succeeding a moonlight night than after a dark one, from which it is inferred, that they have fed more plentifully, and are, therefore, more lazy and less disposed to fly than when hungry and light.

They come into the swamps and cripples, along the shores of large rivers, in the beginning of June, and remain there until August, after which, most of them go out into Indian-corn fields, and other places where the ground is soft, but not swampy, and as the season advances, betake themselves to the wood. I am induced to think, that in the early part of the season, they frequent the marshes along rivers, because, the bills of the young are too tender to bore for food in any other than very soft mud, and that they leave them in August or September, because, by that time, they have become sufficiently hard and strong for that purpose. They feed on the larvæ of insects and aquatic worms, and have astonishing powers of digestion; the flesh is highly prized in every country where they are known, and their trail is superior to that of any other bird. The length of the American female, is twelve inches, and the male ten and a

half; like the European bird, they can see better in the dusk of the evening or in the moonlight, than by day, and commence their flight soon after twilight.

Wood cock shooting in the marshes and cripples, is very laborious business, and is to be done in the hottest part of the year. Most shooters begin the amusement too early, and do not wait until the birds have either size, or strength enough, to make them worth killing, either for amusement or the table. The season should not commence before the first of July, though many are destroyed a month sooner; they are not, however fine, until September or October, and it would be better for all, to wait until that time. This bird is slow on the wing, and presents a very fair shot in the clear;—in a wood, after being flushed once or twice, they are apt to rise to the tops of the trees, and require a quick shot to stop them, but, a very slight hit will effect that purpose.

The Snipe

This bird resembles the European snipe in plumage, shape, and habits; but, is said to be an inch shorter, and has sixteen tail feathers instead of fourteen. They arrive in Pennsylvania on their way north, about the tenth of March, and remain with us for three or four weeks. Most of them breed far north, though some remain in the northern parts of Pennsylvania and New York all summer.

On their arrival in the spring they are generally poor, but get in good order before they leave us: they return in September, and continue until December, when they go on to Carolina and Georgia, where they winter; there they

find good feeding in the rice fields, and are very abundant. They frequent low and marshy ground, and like the wood cock, procure their food by boring. They are eleven inches long, and seventeen in extent, the bill is two and an half inches in length, and is not so strong as that of the wood cock.

Until the shooter becomes accustomed to this bird, he will find it difficult to hit, from the zig zag manner in which it flies when it first rises; he should wait until the bird is about to take a direct flight, when it will be found an easy shot, as a very slight wound will bring it down. When they are plenty, they afford excellent diversion, and are withal inferior to few birds for the table. They do not generally lie well for the dog, and where the grass is not very high he had better be dispensed with. A slow staunch pointer is preferable to any other dog, as the setter, from the quickness of his movements, is apt to flush them unexpectedly. When they rise, they make a short quack, and rise to a considerable height, they then describe a circle or two, and drop suddenly into the spot where they intended to alight.

In the fall of the year, these birds get very fat, their trail is then thought, by many, to be equal to that of the wood cock.

Some persons have supposed, though for what reason I know not, that the snipe rises by its bill; he is certainly strong enough to rise in the same manner as other birds do, and I very much doubt if any person has ever had an opportunity of witnessing the fact in a satisfactory manner. When wounded, I have seen them attempt to rise, but did

not perceive them use the bill for that purpose; as in regard to all other birds there are many erroneous, vulgar notions respecting them.

Ruffed Grouse or Pheasant

Is to be found in most, if not all, the states of the Union; and like the partridge, is known by more names than one. Including New York, part of New Jersey, and all the eastern states, it is called the partridge, in Pennsylvania, it is known by the appellation of pheasant; the latter, though, certainly a misnomer, is not so grievous a one as that of partridge. It bears, without dispute, a much greater resemblance to the bird called the English pheasant than it does to their partridge. Although, not so splendid as the pheasant; it is not equalled in plumage by any other land game bird, except the latter, on this or the European continent. It is, perhaps, unnecessary to say that the pheasant is not a native of England, but was introduced there from Asia Minor; it has, however, become now, completely naturalized to that country.

The ruffed grouse, wood grouse, long tailed grouse, (or pheasant, as we call it), is about eighteen inches long, and twenty-three in extent from the tip of one wing to the other, and has, in some instances, weighed twenty-eight ounces; it is found as far north as latitude fifty-one, and as far south as Georgia; it is seldom met with on low land near the seaboard, but is pretty much confined to hilly and woody countries: Lewis and Clark, in their expedition, found them abundant on the mountains between the Columbia and Missouri Rivers. Although nearly allied to the

pinnated, or real grouse, they differ in this particular materially, that the former is rarely to be met with in an open hilly country, whilst the latter is confined to places of that description. The ruffed grouse, or pheasant, (as you please) lays from nine to fifteen cream coloured eggs, in a nest made with grass and leaves at the root of a bush, or by the side of a log, always in the most sequestered places. The young, as soon as they are hatched, leave the nest under the protection of the mother, who calls them by a cluck much resembling the domestic hen.

Like the partridge, they are excellent protectors to their broods, and use all the finesse and strategem of that bird in securing and protecting their young from danger. Wilson mentions an anecdote, which occurred under his own immediate notice, and which certainly surpasses any story of the kind, I have read or heard of concerning the American or English partridge. He says, "I once started a hen pheasant with a single young one, seemingly only a few days old, there might have been more, but I observed only this one. The mother fluttered before me for a moment, but, suddenly darting towards the young one, seized it in her bill and flew off, along the surface, through the woods, with great stateliness and rapidity, till she was beyond my sight, leaving me in great surprise at the incident. I made a very close, active search around the spot for the nest, but without success." The males have one habit, I believe, peculiar, that of drumming, as it is called; this is the call for his favourite hen. In some secluded spot, he selects a log, where after having for some time strutted about with expanded tail, and wings dropped, like the turkey or any other dandy, he

commences beating the log with wings, at first with slow, but heavy strokes; but by degrees he beats more rapidly, with short intervals, something like the long roll on the drum, until at last the beating is so rapid that the strokes cannot be distinguished, but sound like a long peal of distant thunder. Mr. Wilson states, that he has heard them at all times of the day, though I do not recollect to have at any other time than in the afternoon, toward evening; this occasion is selected by the rifle hunter, to make the bird his evening meal, as it then seems regardless of safety, and will frequently permit his greatest foe to approach, though fully observed, within a few rods of him. When the weather is hard, and food scarce, they are frequently taken in traps and snares. When the snow is deep and soft, they will, on being flushed, fly a short distance and pitch into it, and after running under for some distance, emerge and rise again. Their flights are longer and more rapid than the partridge: they rise with a tremendous whirring, and if they intend to alight on a tree will sometimes challenge. They are hunted in some parts of the country, with small dogs, and as soon as flushed, will fly into small trees and alight on the lower branches, and so long as the dog continues barking under them, appear to have no thoughts of flying, but keep looking down watching the motions of the dog; so infatuated are they under these circumstances, that they will permit the shooter to single them out one by one, until the whole pack is killed, provided he begins with those on the lowest limbs of the tree, otherwise, those falling from above will alarm the birds below, and the whole will take flight.

Many attempts have been made to raise them by placing the eggs under the common hen, but without success, the young ones dying in the course of a few weeks: some have been raised, which were taken young, but I have never seen any domesticated. In the fall of the year, they feed on grapes, particularly a very small bitter kind, blackberries, acorns, beach nuts, and chestnuts; like all the family they belong to, are very fond of ants and their eggs; in the winter, they feed on buds of different trees, the apple tree particularly, laurel roots [sic] and dog wood berries. The public have been cautioned over and over again, against the deleterious effects of eating these birds after the month of December; in some instances, death itself has been the penalty, for disregarding the experience and reiterated counsel of others. They are brought to market from a considerable distance, undrawn, and the poisonous qualities of the laurel contained in their craws, is absorbed by the flesh.

In August and September they are found in packs of fifteen or twenty, after which they disperse, and late in November are seldom seen in more than pairs. When not much disturbed, they are tame, and will suffer the dog to approach very close, but when much hunted, and late in the season, they are wild and will not lie well. They are partial to the sides of hills where there is a small open valley between, and when disturbed, will fly across or down the same, at the outside edge of the wood, they very seldom fly up hill, perhaps never, unless very much pressed.

The proper season for shooting this game, is from the first of September, until the first of January, after that time, their flesh, as before noted, is highly pernicious.

In the early part of the season, shot number five or six will answer, but after November, the shooter who wishes to kill and not cripple his birds, will use number three or four; they are very strong and will carry away as much shot as any other bird, especially from a straightforward shot. I have known them to fly a long distance without any perceptible injury, and have unexpectedly found them perfectly dead; they therefore, require accurate marking. From the sudden manner in which they rise, and the accompanying whirring noise, they are apt to put the inexperienced shooter off his guard, and with impunity leave him to gaze on their unexpected and rapid flight.

Rail or Sora

In Pennsylvania and the northern states, this bird is called the rail, in Virginia it is called the sora, and in South Carolina the coot. Its natural history has excited much attention and research, and so far, with but qualified success. Their disappearance is so sudden, and their ability to fly so limited, that many have supposed, that they winter in the mud like frogs; in fact, a gentleman in Virginia gravely says that they actually change into frogs, and that he and his negroes know it to be so. The simple truth is, they do migrate to the south in the fall, and return north in the spring; facts go fully to establish this assertion. But few winter in the United States, most of them migrating to the West Indies and to Mexico. It appears astonishing, that a bird which rarely flies two hundred yards at once, and even that short distance with apparent difficulty, could possibly make a voyage of so many hundred miles over sea; but our

RAIL SHOOTING ON THE DELAWARE

astonishment is abated, when we consider that the bird can swim much better than fly, so that by alternately flying and swimming, they are enabled to perform these long journeys. They have been frequently met with at sea between the Floridas and the United States, and some have been taken after lighting on board of vessels. I am not so sure the rail of Pennsylvania is exactly the sora of Virginia, though Mr. Wilson says it is the same bird; but some gentlemen with whom I have conversed, and who have seen both birds, seem to doubt it. The bird found about Detroit and in the interior of the middle states, is certainly different. I have seen many in the neighborhood of Carlisle, Pennsylvania, which certainly differ from our marsh rail; they are somewhat larger, and the males have a small prominence on the upper part of the bill, these I have never seen in our river marshes; those in Michigan, feed on the flats in the lakes on which the wild rice grows, and get extremely fat. The bird now under consideration, is nine inches long, and fourteen inches from the tip of one wing to the tip of the other. They breed in meadows, generally in the vicinity of tide waters, and in marshes along rivers which are not overflown; their nests are built in a tussock, and have four or five eggs of a dirty white, with dark spots: the young run as soon as hatched, and like the parent, soon learn to conceal themselves: from their colour, which is black, they look like ground mice when running through the grass and weeds.

They begin to congregate in our marshes, towards the latter end of August, where they remain until the weather gets cold. Mr. Wilson is not quite correct in supposing,

that they leave us on the first sharp frost; though it is true, they will not be seen the day succeeding a frosty night, for they go into the bushes, and cover along shore, where I have known them to remain until November, and have shot them on the tenth of that month. When they first arrive, they are very poor, and totally worthless, but in the course of a few weeks, by feeding on the seed of the reed, they become very fat. I have heard old sportsmen say, that they are rarely found so fat now as formerly; this I think very likely, and it is to be accounted for by the fact of the great increase of shooters, many of whom not having a due regard for their reputation as sportsmen, shamefully commence slaughtering and harrassing them before they are fit for any purpose whatever. It is also a singular fact, connected with the history of this bird, that on one day, not a bird will be seen in the marsh, and on the following, they will abound. They have a short queaking cry, which they seldom use, unless some sudden noise is made in the marsh, such as is produced by throwing a stone, splashing an oar or discharging a gun, and this they will only do when the water is low and they are well covered by reeds.

They certainly possess the faculty of concealing themselves in a greater degree than any other bird we know of, their colour which much resembles the colour of the reed when dead and rotting, greatly assists their sagacity in this particular. When the water is high, they conceal themselves in the thickest reed, and if apprehensive of being discovered, will lie as close on the surface of the water as possible, and very frequently will cling to the reed with their feet and the bill will be the only part shown above the

water. If there be much shooting on the marsh, they will very soon make toward the shore, or to the tall and strong reed where the shooter cannot follow.

When wounded, they dive, and sometimes rather than be taken will hold to a reed until they are drowned, and at low water are sometimes found in that situation. Those that are wounded and cannot get to the shore, become prey to the catfish, and eel, both of which are abundant on the marshes in the rail season. Like the wood cock, they feel the influence of moonlight nights, and for the same reason, are in better order during the increase of the moon than when the nights are dark.

Another singular fact in relation to these birds is, that they are subject to a kind of fits, either from fear, or anger, or perhaps both. Mr. Wilson mentions this fact as communicated to him by our accomplished naturalist, Mr. Ord, and though the correctness of the story has been doubted by some who are sceptical, from ignorance; I am well assured, this peculiarity belongs to that bird, and that Mr. Ord's account is not only true, but that this case is not a mere isolated occurrence. A very respectable and intelligent friend of mine, when shooting rail, last autumn, on the Delaware, came upon one very suddenly with the boat, and instead of flying, the bird turned over on its back and began to kick and flutter at a wonderful rate. He naturally supposed the bird to be wounded, and when the boat was near enough picked it up, upon examination, however, he found no marks about it, and as it was then apparently quite dead, he threw it into the locker of the boat among the other birds. He was, however, undeceived when he

came to take the birds out of the boat, for he then found this bird perfectly recovered, and ready to make his escape; he took him home and kept him for some time, until an opportunity offering, the bird got off.

In Virginia, they have a singular method of killing the rail, or sora, as it is there called, and it is done, as I have been informed, somewhat in this manner. An iron grate is fixed on the end of a long pole, in which is placed a quantity of very combustible wood: this is set on fire, and the pole is then set into the canoe like a mast, the boatman is provided with a light paddle, and he directs the boat into the reed; the poor birds become astonished at the light and few attempt to fly, they are struck by the boatman with his paddle, who so long as the tide is sufficiently high, is busily employed in this manner; more than two hundred birds have been killed by two or three boatmen, in the course of one night.

In Pennsylvania, New Jersey, Delaware, and Maryland, they are killed more according to art, but with, perhaps no greater amusement. A batteau, or light boat, from fifteen to eighteen feet long, is used for this purpose; the shooter is provided with a man to push the boat, which is done by standing in the stern, and propelling her with a pole ten or twelve feet long, with a large knob on the end of it, to prevent it sinking too deep into the mud, and a spike driven into the end of the knob, to prevent it slipping. The sportsman stands forward in the boat, with his left foot considerably advanced, in order to keep himself in a steady position, the boat is then pushed in the direction the shooter may think proper to direct, and the birds being alarmed by

the boat, will rise before him, almost always at such a distance as to make their death certain; they will sometimes, even suffer the boat to run over them without flying. The sport seldom lasts more than four hours, for soon after the tide begins to ebb, from some cause, not easily explained, the bird will not get up. It is no uncommon thing, for one shooter to kill from fifty to eighty birds in a tide. By many persons they are considered as a great delicacy, and sell in Philadelphia market, from fifty to seventy-five cents per dozen, and sometimes higher.

They are very slow on the wing, and fly with their legs hanging down; a very slight wound is sufficient to kill them, provided it be anywhere about the body; very fine shot is used for this purpose, and should not be a lower number than eight, though number nine is more commonly used.

The Grouse

The pinnated grouse, of this country, as it is termed by Wilson, is beyond doubt, one of the finest game birds in the world; and differs from the European grouse in many particulars.

In the United States, they are to be found in only a few places, and are decreasing in number rapidly. But a few years since, they were tolerably abundant on Long Island, and now there are very few or none at all there. They are to be found in the plains of New Jersey; in Northampton, and Wayne counties, Pennsylvania; on the barrens of Kentucky, and the plains of Illinois and Indiana. Captain Lewis found them also, on the plains of the Columbia River.

It has been a disputed point among naturalists, whether or not the prairie hen, as it is called in Illinois, is the bird, we call the grouse. Wilson seems to think it is; and as he had most likely, opportunities of comparing them, his authority is of some weight; others have contended, that it is not, in as much as the bird is only to be found in the prairies in the fall and winter season, and it is also alleged, that they differ in flavour, the latter objection is answered by saying, that their food is different in the prairie country, from that which they obtain in the barrens. On the whole, however, the better opinion seems to be, that they are one, and the same bird.

Except the wild turkey, the grouse is the largest of our feathered land game, and certainly affords better diversion to the sportsman, than any other.

The weight of a full sized grouse, is from three, to three and a half pounds; though they rarely attain the latter weight. They pair in March, and breed through April and May; and the poults are entirely under the care of the hen. They lay ten or twelve eggs about the size of a pullet's or guinea hen's, of a dirty white colour; it is, however, very rare to find a nest. Their food consists of whortle berries and acorns, the partridge berry, and when pinched by a hard winter, will eat the young cones of the pine: they will also sometimes go into the grain fields, and are said to be fond of indian-corn.

Like most of the family they belong to, they are not migratory, but remain in the place where they are bred. They also display the same instinct, in protecting and preserving their young from danger, that is practised by the partridge

and pheasant; and like those birds, they evince the same sexual appetite, though in a greater degree.

Dr. Mitchell, in his able and intelligent letter to Mr. Wilson, gives us a very detailed account of their conduct, during the pairing season, which I will take the liberty to quote at length. He says, "during the period of mating, and while the females are occupied in incubation; the males have a practice of assembling principally by themselves. To some select and central spot, where there is very little underwood, they repair from the adjoining district. From the exercises performed there, this is called the scratching place.* The time of meeting, is the break of day. As soon as the light appears, the company assembles from every side; sometimes to the number of forty or fifty. When the dawn is past, the ceremony begins, by a low tooting from one of the cocks. This, is answered by another. Then they come forth one by one from the bushes, and strut about with all the pride and ostentation they can display. Their necks are incurvated, the feathers on them are erected into a sort of ruff; the plumes on their tails are expanded like fans; they strut about in a style resembling, as nearly, as small may be illustrated by great, the pomp of the turkey cock. They seem to vie with each other in stateliness; as they pass each other, frequently cast looks of insult, and utter notes of defiance. These, are the signals for battles. They engage with wonderful spirit and fierceness; during these contests, they leap a foot or two from the ground, and utter a cackling, screaming, discordant cry. They have been found in these places, earlier than the ap-

* These places are also called blowing grounds.

pearance of light in the east. This fact has led to the belief, that a part of them assemble over night, the rest join them in the morning. This leads to the further belief, that they roost on the ground, and the opinion is confirmed by the discovery of little rings of dung, apparently deposited by a flock, which had passed the night together. After the appearance of the sun, they disperse."

This tooting as it is called, can be heard of a still morning, at the distance of three or four miles, and to them it is a fatal propensity. The rascally, licensed poacher, who is regardless of times and seasons, discovers their resort; and from the appearance of the ground, where these battles are fought, for it becomes like a thrashing floor, he is enabled to make a systematic and unmanly attack on the poor birds, who think of no other enemy at the time, than their own species.

A blind is erected, or as it is called a bush house, at a suitable distance from the blowing ground; to this the shooter resorts, long before day, with his ducking gun, or musket; and patiently waits, until the contest has fairly commenced, and then at a single discharge, will murder half a dozen; and so infatuated are they at this time, that frequently several discharges are made, before those that are left alive, take wing. Notwithstanding laws to prevent this abominable practice, have been passed in some of the states, it is still continued, and it is to be feared, will be continued so long as a single bird remains.

The grouse inhabit dry grounds, without any lofty trees, and are partial to that which is covered with underbrush only. Many are destroyed by burning the woods, an occur-

rence which frequently takes place in the country where they most abound.

Mr. Wilson seems to think, that they never drink out of a stream, or pond, and that they have a dislike to water in such places; and gives the following anecdote, in confirmation of his opinion. "Whilst in Tennessee," he says, "a person had taken an old hen grouse in a trap, and being obliged to keep her in a large cage, as she struck and abused the rest of the poultry; he remarked that she never drank; and that she even avoided that quarter of the cage, where the cup containing the water was placed. Happening one day to let some water fall on the cage, it trickled down in drops along the bars; which the bird no sooner observed, than she eagerly picked them off, drop by drop, with a dexterity that showed, she had been habituated to this mode of quenching her thirst, and probably to this mode only: in those dry and barren tracts, where except the drops of dew and drops of rain, water is very rarely to be met with. For the space of a week he watched her closely, to discover whether she still refused to drink; but though she constantly fed on indian-corn, the cup and water still remained untouched and untasted. Yet no sooner did he again sprinkle water on the bars of the cage, than she eagerly, and rapidly picked them off as before."

About the first of August, they begin to assemble in packs, of some fifteen or twenty birds, though they have been found much larger; they are, however, not worth shooting much before the first of September, by which time they will have acquired both strength and plumage.

The pouch, or bag, on the sides of the necks, is about the

size and colour of an orange, when distended; and when collapsed, hangs along the neck in wrinkled folds. They have also, attached to the neck two tufts of long feathers, one on either side, resembling wings; these when the bird is in the act of strutting, are erected, and give the appearance described by Dr. Mitchell.

Grouse shooting may be justly considered as the ne plus ultra of shooting; requiring more laborious sportsmen, better shots, and better dogs, than any other sport, in the shooting line in this country. It is, however, an amusement that comparatively few can partake of; as the birds are to be found in so few places, and those so distant; besides the trouble and the expense attending the excursion.

The grouse is a strong bird, and of pretty rapid, though direct flight; and will test the nerve and skill of the shooter better than any other. They rise suddenly, and with great noise; and if he be not perfectly collected, will certainly get off before he thinks of shooting. If he does not wait until the bird gets to the height from which it flies directly forward, it will be but accident if he hit.

Grouse shooting, as has been before observed, requires an indefatigable sportsman, and hardy dogs. Either the pointer, or setter, will answer; but the latter is certainly to be preferred, for the reasons heretofore given. On the plains of New Jersey, water is out of the question, and hence the sportsman should be well provided with that article, particularly if he hunts there with setters.

Relays of dogs should be always had, because, one day's hunting, is as much as any dog can endure.

Where the birds are flushed, the old cock is the first to

rise, and it should be the shooter's object to secure him if possible: and if successful, his chance of getting more out of the pack is much greater, than when he is suffered to escape; especially in the early part of the season, as the young birds then, lie much closer than when it is far advanced.

The shooter should always bear in mind, that the grouse both feed and fly down the wind; in this particular, they differ from the partridge, and most other game birds.

After a rainy night, these birds will not lie well, and as soon as they perceive the day dawning upon them, will run; which is the case also with the English grouse.

Several plans have been recommended to preserve these birds, when they are to be sent a long distance, and the weather is warm.

In England they are put into a tight box, the bottom of which is covered with heath, and each bird covered with paper.

Another plan, which is said to be successful, is, to put them each into a bladder, and to make it as tight as possible around the neck, and then seal it, this plan excludes the air, and when put into boxes, it is said they will keep a long time; in either case they should not be drawn.

In this country, the usual, and perhaps better mode, is to pack them in powdered charcoal. Notwithstanding, however, all the pains that can be taken, the birds will spoil if the weather be moist, or warm, and they are to be kept any length of time.

In the early part of the season, shot, numbers three, or four, is generally used, but as the season advances, the

shooter should graduate his shot by the strength of the birds; and in November, he will find that number one, or even single B, will be the most certain.

Duck Shooting

Duck, or wild fowl shooting, as it is singularly called in England, affords a great deal of diversion to many of our sportsmen.

The wild duck is to be found in abundance in all parts of the United States. There not being a river, lake, or stream without them at certain seasons of the year; and no country in the world can boast of so great a variety. Most of them breed far to the north, though some breed as far south as Virginia.

Except those that breed with us, they generally come on from the north, in the latter part of September, and remain as long as the ice will permit them. I am told that more go north by the Mississippi than formerly; which will account for their being scarcer with us on the seaboard, within a few years past.

A large portion of the wild duck family, is considered good eating, and from the price which some of them bear, in the markets of our cities, many persons are induced to make shooting them a business; though I have never known any that got rich by it. Like all other shooting, it is, "A good amusement, but a wretched trade."

The canvass back, or white back, as it is sometimes called, is deservedly ranked by epicures, as the most palatable of all ducks; though several others are very little inferior in flavour. They are supposed to acquire their exquis-

ite taste, from the food on which they subsist; which is the roots of a kind of grass that grows near the shores, and in the shallow water of the rivers, which empty into the Chesapeake Bay; it is also found in the Delaware, but not so abundant as in the former. The root of this grass they procure by diving, and exclusively feed on it, so long as it can be obtained.

Many ways and devices have been resorted to in this country, for the purpose of taking these and other ducks, for they are so wild, that nothing but strategem will succeed.

On the rivers and bay of the Chesapeake, they are decoyed by dogs in a singular manner, called toleing. As I have never had any experience on this subject, I can do no better, than give the whole of a well written letter, directed to the editor of the Elkton Press, and published in that paper last winter, which is as follows:

"Sir:—It may not be uninteresting to some of your distant readers, to be informed of the manner of shooting wild ducks on the Susquehanna; and though many of them may be incredulous, no citizen of Cecil county will doubt the sequel.

The phrase toleing ducks, peculiar to this part of the world, is not understood anywhere else, and is practised in the following manner: When a gunner discovers a flock of ducks floating at too great a distance to be shot from the shore, he crawls near to the water, and conceals himself behind a blind, which he previously erects for the purpose, of logs covered with river grass; he has with him a dog

trained to run after chips, or small stones; the colour of the dog should be red, or white, though almost every colour has been found to answer at times. Concealed from the ducks, the gunner throws a stone near the edge of the water, and the dog instantly springs from the blind and runs after it. At the sight of the dog playing on the shore, the ducks stretch out their long necks, and gaze with apparent amazement and curiosity, like a gang of negroes at punch in the puppet show. The gunner continues to throw stones right and left, and the dog should be kept running as fast as possible, and not allowed to stop, if it can be avoided, for an instant; his large bushy tail ought to be constantly in motion. The ducks, in the meanwhile, are delighted with the singular spectacle, and swim towards the dog as fast as their feet can paddle them. So great is their impatience to get a nearer view of him, that those which are farthest off, will fly and light between him and those that were nearest. All the time the ducks keep their eyes fixed upon the dog, and seem to be governed by a spell which they have not power nor inclination to break, like birds charmed by a black snake. As soon as the gunner perceives that the ducks take notice of his dog, his hope is raised frequently to be disappointed; for if the ducks see the gunner, or if his dog run behind anything on the shore that conceals him from their sight, or if from fatigue or laziness, he decline running, or if he bark or lie down to gnaw the stone that was thrown for him, which frequently happens, instantly the spell is broken, and the ducks take to their wings. If, however, no accident happen, and everything works right, as the duckers say, often a flock of

ducks that cover a half acre of water, is toled as it were by magic, from six hundred yards or upwards, to within twenty feet of the gunner. The number that are killed in this way is incredible; for there are generally two or three gunners that shoot from the same blind. I will not attempt to account for toleing; by what instinct or impulse they are ruled in coming to the dog, whether it be curiosity or magic, I know not; but I know the fact exists as I have stated, and can be attested by hundreds of gunners on the Susquehanna; and I defy Dr. Mitchell, or any other sage, to give a satisfactory explanation of it. I have seen the same flock of ducks toled to the shore three times in one day by the same dog, and shot at each time. It is not to be supposed, that the dog is conscious of the effect he produces on the ducks, or knows that they come to the shore to see him; he is engaged playing with the stones that are thrown for him and thinks of nothing else. There is difficulty in training a toler; most dogs are too lazy, and refuse to run, as soon as their feet get cut by the stones and shells on the shore, and few of them will play after they have seen the ducks shot, but stop to look at them when they approach the shore, and sometimes plunge into the water after them before they are near enough to be killed.

A gunner should be provided with several dogs to bring the ducks he shoots out of the water, and never suffer his toler to do it, lest he contract the habit of neglecting his play to swim after the ducks before they are shot. The Newfoundland breed makes the best water dogs, and will plunge into the most rapid stream, or break through the ice in the coldest weather, to bring out ducks. Ducks are not

to be toled at all times, nor the same flock very often, and there are several kinds that will never tole. Early in the season, that is, the latter part of October, or first of November, the canvass back and red head, the most delicious of all the feathered creation, tole to abundance, but after being shot at several times, they become wild, and will fly at the sight of a dog. Some of the Susquehanna gunners can ascertain nine times out of ten, without making the experiment, by watching the motions of a flock of ducks, whether they are in the notion of toleing, or will fly from the dog. This is the last art that a gunner acquires, and is not to be learned, except from experience. No state in the union abounds with water fowl of every description, equally with Maryland. They are to be found in the bay below Havre-de-Grace, numerous enough to darken the air, and the thunder of their wings can be heard, when they rise from the water, at the distance of ten miles. The art of toleing, like many other curious arts, was discovered by accident; and tradition says, that a gunner concealed behind a blind, watching a flock of ducks, presently saw a fox playing on the shore, and was surprised to perceive the ducks swimming to shore to gaze at him; if he ran up the beach, they swam in that direction, and gazed at him in silent admiration, or if he ran down the beach, they followed, approaching as near as they could without leaving the water. Reynard, though proverbially cunning, had no design upon the ducks; he was rolling and prancing for amusement; but the gunner took the hint, and after shooting a great number of the ducks, that the fox, without intending, had toled for him, he started his dog to running

on the shore, by throwing pieces of bread for him, and to his great delight, discovered that the project succeeded.

The Chesapeake Bay and its tributary streams, supply every city in the union with ducks, swans, and geese; and sometimes they are exported to London. Here are to be found an army of the most unerring marksmen in the world, consisting of gentlemen who shoot for pleasure, as well as gunners who shoot for sale. I have not time to speak of the mode of shooting ducks on the wing, as practised in this state.

A Sportsman."

The writer of this letter, is not quite correct in supposing, that toleing is confined to the Chesapeake; it is practised in most of the eastern states, on the seaboard.

Red handkerchiefs are sometimes tied to the dogs, to make them more enticing to the ducks; and small flags waved about by the shooter, from behind his blind, are often found to produce the same effect. Another, and very general method of shooting them, is for the sportsman to take a position on some point of land, over which the ducks fly, at certain hours of the day, and when the wind blows strong from a particular quarter. Every shooter is supplied with a water spaniel, or some other dog which will bring the ducks out that fall in the water.

On the Delaware, they are got at, by what is called paddling; and this is most successful when there is plenty of ice in the river. The shooter is prepared with a light batteau, twelve or fourteen feet long; painted perfectly white, both on the in and outside. He puts on a white cap and

shirt, and in short, has everything about himself and boat, as white as possible. Small troughs are attached to the outside of the boat, in which cakes of ice are placed, with the edge upwards, so as to completely conceal the shooter. When he intends to make up to a flock of ducks, he sits down, or rather partially lies in the stern of the boat, with his head, as much as practicable, below the icy screen. He then takes a small paddle, about three feet and a half long, with which the boat is propelled, by a kind of rotary motion, through the water. The boat moves on slowly, without any rocking, or irregular motion; and is mistaken by the ducks, for a mass of floating ice. In this way, they will frequently permit a boat to approach within twenty yards of them. When there is no ice floating, a quantity of decayed reeds, or grass, is placed on the bow of the boat; and sometimes answers a pretty good purpose.

Hogsheads are sometimes sunk into the mud on the flats over which the ducks fly, in which the shooter and his dog are concealed. Artificial ducks, and stool ducks, are also employed, to decoy these poor birds, and no trick, or strategem that human ingenuity can devise for their destruction, is left untried.

To give a particular description of the many kinds of ducks in this country, would occupy more room, than can be spared in a work of this kind, and would answer no useful purpose to the sportsman, for whom it is intended; and the author hopes that what has been said on the subject, will be deemed sufficient.

The wild goose, brant, and swan, are shot pretty much in the same manner as the duck, but are not so easily got at,

being very shy and wary birds, particularly the latter, and are seldom killed, except when forced to fly over, or near a point, on which shooters are stationed; they are all excellent eating, and when killed, will command a high price.

The Curlew, Plover and Other Aquatic Birds

For the reason given in relation to the duck, it is considered useless to give a description of the different kinds belonging to this species, which are to be found in our country, and which are shot for game.

The large curlew, which is the finest kind among them, is rarely seen beyond North Carolina, and are not very abundant in that state. In South Carolina and Georgia, they are numerous, and much sought after. They are, however, only to be killed, when passing over certain points of land, from one feeding ground to the other. They are very shy, and from the place where they feed, (on the beach) being so open and exposed, the shooter has no opportunity of approaching them undiscovered. The smaller curlew, like the sea robin, willet, and most other birds, that feed in the same manner, is not so fine a bird for the table, being generally very sedgey. The large whistling plover, has the same fault; but the golden, or bull-headed plover, is one of the finest table birds we have, being considerably larger than the snipe, and equally good in flavour. On their way to the south, in the fall, they tarry a few weeks in the middle states, and frequent old bare fields and seeding ground; where they sometimes are found in great abundance.

Wild Turkey

Previous to the discovery of America, and the introduction of the wild bird from thence into Europe, the turkey was unknown there; so that the American wild turkey is the original stock from whence the domestic bird originated; and how or why it received its name, I am at a loss to conceive, for it certainly bears not the slightest resemblance to the Indian appellation.

They are common, to both North and South America, and are found, in all our states and territories, south and west of the Hudson. But like the deer and other large game, they disappear before the march of civilization. They are, however, still tolerably abundant in the mountainous parts of all the middle and southern states, and are quite numerous in the unsettled parts of the western states and territories.

When in full feather, the turkey is a splendid bird, having in its plumage a great variety of shades and colours. The weight of a full grown bird, is from twenty-five to thirty pounds, though some are said to be found much heavier.

They are found from twenty to fifty in a pack, or drove, as it is called. Like the grouse, when alarmed, they immediately scatter, running in every direction, and seldom fly, unless very hard pushed by a dog. They are fond of feeding in wheat stubble, and are very partial to buckwheat, to which they are very destructive: a visit from a drove of them, being as much dreaded by the farmers, as from so many horses.

From the great weight of their bodies, they are but indifferent on the wing, and seldom attempt to fly any distance, unless across a river; and in doing this, they are obliged to select the highest point of ground to start from, and even then, if the river be wide, it sometimes happens, that all will not reach the opposite shore.

They are taken in traps made of saplings, with a small aperture on one side, just large enough to admit one bird at a time. This is placed in the part of the woods they are known to frequent, and a train of grain is laid on the ground for a considerable distance, leading to this aperture; and a quantity is put under the trap. When the grain is discovered, they follow it up until they get up to this hole, and the leading turkey, stooping down, without suspicion, enters the trap, and the rest follow, when once in they never think of again stooping down to get out, but remain there until taken by the owner.

They are also decoyed by the hunter with a whistle, made from one of their thigh bones, with which he can counterfeit their call, and thus have them within his reach.

They are shy, and are seldom to be got at, except by some artifice of this kind. When they are feeding in a field, or other open place, two, or three are stationed as sentinels, at different points, on the top of a fence, or a stump, who immediately give notice of the approach of the hunter, by a call similar to that of the domestic bird.

They are generally shot with rifles, that being almost the only gun used in those districts of country where they are to be found.

THE GUN

WHO first invented the gun, remains in considerable doubt and obscurity. It has been said, that Edward the black prince, was the first to make use of heavy ordnance; but this allegation seems to be unsupported by any historical information, or collateral fact. All we are well assured of is, that cannon were used by several nations for military purposes, in the fourteenth century.

The musket, or fowling piece, has undergone more alterations and received greater improvements than any other engine within the same space of time, and is doubtless capable of many more. Until the adaptation to it of oxy-muriatic acid combined with the alkalis, or metals, in the form of detonating, or percussion powder, it was thought by many, that further improvement was out of the question; but the superiority of that composition over common gun powder for priming, being now so completely established, it is unnecessary to say, that such an opinion was founded in error. In regard to men it has been said, that

"'Tis with their judgments as their watches; none
Go just alike, yet each believes his own."

This will also apply to their guns, for almost every man after using one for any length of time, and finding no material deficiency in it, will suppose it to be one of the best in the world. That there is a difference, and a very considerable difference between guns, cannot be doubted, and it

is the interest of the shooter to ascertain, as far as possible, in what particular this difference exists. Why it is that guns, resembling each other in every respect, should not shoot alike, is not easily to be accounted for, but such is the fact; in the general way, however, those barrels that are made in a particular manner, are better than those which are differently constructed.

Some have ascribed these variations to a difference in the size of the bore, length of the barrel, quality of the iron, and a variety of other matters, none of which will satisfactorily explain the cause.

Barrels of various caliber, length, and material, are therefore made to suit the opinions, or caprices of those who entertain them.

It is my intention to confine my remarks on this subject to the double gun and the percussion locks; the fowling piece in this form being now almost exclusively used.

Double guns have not been in use many years, and the great increase of their manufacture and use, proves their advantages over those that are single.

In this country, we receive guns from all the manufactories in Europe; but more particularly from those in England, France, Flanders, and Germany.

The French make very handsome guns, but they are too light for the shooting in this country, nor does their construction agree with our notions of fitness. The Dutch and German guns are, in general, low priced and badly made; and it would be well for many could their importation be prohibited, as nineteen twentieths of all the guns which have bursted in this country, were German, or Dutch.

They are manufactured in such quantities, and at so low prices, that great abundance of them are sold here to persons who are unable, or unwilling, to purchase the English gun at a higher price, besides they are tinselled off in such a manner as to be quite captivating; they are, however, in general, nothing more than very dangerous man traps, and we should be glad to see their use entirely discontinued in this country.

The English are, without doubt, the neatest and best gunmakers in the world. A large proportion of all the guns they export, are manufactured at Birmingham, and nearly all the London guns, come from thence in a rough state to be filed up and fitted. We have an idea in this country, that a gun to be good must be made in London, and until a few years ago, most English guns had "London" stamped, or engraved, upon them. We now find that many gunmakers in other parts of the kingdom are quite equal to those in London, and differ from them only in price. It may be true that the London makers are more scrupulously nice in fitting up their work, but it is very certain, that much of the work for which such exorbitant charges are made, is entirely superfluous. I have seen guns which were made in several of the Irish and Scottish cities, quite as good as any ever made in any other place.

Notwithstanding the great ingenuity and cunning of the German manufacturers, they have never been able, in all their attempts, successfully to counterfeit the English guns; the cloven foot will be always visible in some part of the work.

There have been a few fine guns made in this country,

but they would not sell to advantage, merely because they were not imported. I have no doubt, but that they might be manufactured here equally as well, and somewhat cheaper, than they could be imported, provided we would rid ourselves of the prevailing prejudice against our own manufactures.

We have as good workmen as in any other place, and our iron is certainly much better than either the English, or German, and should, consequently, enable us to make a better article.

Gun Barrels

On this subject, I have received some very interesting and practical information, from an intelligent friend whose profession has made it his duty to give it particular attention. I will take the liberty to give it in his own language.

He says, "Although so much has been said, by different writers, upon the proportion of gun barrels, still there exists so many conflicting opinions and prejudices upon the subject, that an attempt to remove them, might appear almost presumptuous. Let us, therefore, leave every sportsman to his own choice of length, weight, caliber, &c. merely giving a few hints to such as are unacquainted with their material and manufacture.

The first consideration, after a man has determined upon becoming a sportsman, is liberality to the gunsmith in the selection of his tackle; never reasoning himself into the purchase of a cheap gun, &c. because, he may intend using it only occasionally, for he will soon find that the amount thus saved, will never compensate for the disap-

pointment and loss of temper occasioned by the want of good implements.

The extremely reduced price at which common guns, (particularly German) can now be purchased, renders it impossible that they can be well made; and almost warrants the assertion, that not one of them has undergone the necessary proof. Let the experienced shooter, therefore, beware of those man-traps. Should he, however, become possessed of a gun of this doubtful character, let him separate the barrel from the stock, and load it with a ball that will fit the bore, but enter it without force; the quantity of powder used, should be at least equal to two-thirds of the weight of the ball; a wad should be put on the powder and another on the ball, both being well rammed; this should of course be fired by a slow match, as there would be a great probability of its bursting.

The great reduction in the price of twist barrels, within a few years, places it in the power of every sportsman, to possess one; no other therefore should be used; as the barrels of fowling-pieces are made so light, that common ones can hardly be expected to resist the shocks to which they are liable.

The superiority of twist barrels over others, depends entirely upon the great degree of toughness they acquire, by the process of fabrication. They are of three varieties; each of which presents a striking difference to the eye, after experiencing the effect of the acid, by which they are browned. They are the stub and twist, composed of horse-shoe nails and other scraps of tough iron, which plainly show themselves in the barrel; the power of neither ham-

mer nor sledge being capable of concealing the welding of each particle; the wire barrel, formed by wrapping wire round a mandril, and welding it as in the other; this barrel also shows very distinctly the spiral form of the wire, and the Damascus, so called from its resemblance to the celebrated sword blades of that name; this is, perhaps, formed by fine wire being wrapped round a small mandril, and hammered into a narrow plate, which is again welded over a mandril of proper size, in consequence of which, it becomes more expensive than the others; it is certainly more beautiful, but whether stronger, is a matter of doubt.

After the sportsman has selected a gun to his taste, let him require the gunsmith to take out the breech, in this situation hold it to the light, and look through it, in order to detect flaws, scales, ringbores, or other inequalities: the breech being replaced and the touch hole stopped, the barrel should be filled with water, and allowed to stand some hours, to discover any small cracks that may have escaped the eye, and also to test the tightness of the breech. The locks, should also be stripped and examined, but as they can only be tested by considerable experience, it would be sufficient to remark, that in high priced guns, it is usual for the gunsmith to insure the locks; therefore, as the main spring is the part most liable to give way suddenly, it will be well to let it remain cocked for about twenty-four hours, in which case, if it should be defective, it will be apt to fly.

The sportsman being now possessed of a good gun, it is important that he should preserve it, to which end, let him never retire to rest after a day's shooting, without having washed and dryed it. If it is to be put away for any length

of time, it should be wiped inside and out with an oily rag. A little attention of this kind, will not only preserve the gun, but keep it always ready for the field, and in fact, may actually save life, or limb; as there is but little doubt, that many good barrels are bursted, by allowing them to become too much corroded; that when a wad is introduced, it is rather arrested before it reaches the charge, or becomes so firmly fixed, that when the expansion of the powder takes place, the barrel is either bursted, or very much strained. Some will, no doubt exclaim, this is going too far! such things are very improbable, nay impossible; but let such be assured, that experiments have been made upon seven substantial barrels, to ascertain the effect of slight resistance, when removed from the charge, and that those seven barrels were severally bursted, (loaded with powder only), by simply introducing, either a small bit of clay, wax, or tallow into the muzzle, so as to exclude the air. From these facts then, is it not possible, even probable, that a barrel may be bursted as suggested, or by the accidental introduction of either clay, snow, or any other substance liable to offer slight resistance? Too much care, therefore, cannot be taken, to ram the wad home, to carry the muzzle up, particularly when climbing fences, and above all, to avoid beating a bush with the gun.

To repeat, let the gun be kept clean, be carefully loaded, properly carried, and very many of the dreadful accidents which so often mar the pleasures of the field, may be entirely avoided.

Formerly, Spanish barrels were in great request, and sold at exorbitant prices; but they, like those called Damascus,

were soon driven out of market, by the counterfeiting ingenuity of the English and German manufacturers: So that any gentleman who may be particularly anxious to have one of either, can be now accommodated at a very reasonable rate."

The real Damascus barrels, are said to be formed of alternate rods of steel and iron welded together; and the Spanish barrels, from the soft iron used in the shoes and nails of the mules; others have been silly enough to suppose, that a portion of platina is used in their composition. Be these things as they may, it now matters not, as the twisted stub, or common twist barrel, is found to answer every useful purpose.

The length now most approved of, is from twenty-four to thirty-two inches, either of which, or any one intermediate, is sufficiently long; I would, however, prefer one not much under thirty inches, on account of the convenience of loading.

The bore, or caliber now most approved of, is from five-eighths to three quarters of an inch.

Various plans have been tried, on the bore of a gun, to make it shoot close and strong; two things highly important to the sportsman. Not many years since, bell muzzles, as they were called, were all the rage, but they are at present, entirely out of use. Mr. Johnson suggests, that the bore be made somewhat larger at the breech and some inches up the barrel; he says, "some time ago, a fowling piece came into my hands, the cylinder of which for several inches from the breech, was a trifle wider than the remainder of the barrel. This gun shot remarkably well, better in fact,

than any I had before met with; and conceiving this superiority, must arise from the peculiarity of the bore, and having another very indifferent fowling piece, I had the latter rebored in the manner just described, and was pleased to find it answer the desired purpose in a manner that far surpassed my most sanguine expectations. Under these circumstances, I have no hesitation in recommending the above plan of boring barrels; the increase in width at the lower end, should be but a trifle, just sufficient to be perceived when putting in the wadding, which will, of course, slide rather easier into that part."

This is certainly worth the experiment, but it seems doubtful to me, whether or not the wad, particularly that on the shot, will remain sufficiently close, under that circumstance.

After all that has been said, or written on gun barrels, there is a mystery connected with them, which has never been explained. For it is within the knowledge of every sportsman, that two barrels may be made by the same man, of the same metal, caliber, length, workmanship, and in every respect apparently alike, notwithstanding, they will shoot differently. In fact, it is very rare that the barrels of a double gun shoot alike, the manner of accounting for this, as yet remains to be discovered.

I believe it is generally admitted, that the softer the metal, the better the barrel, and for that reason, iron which has been wrought two or three times, is to be preferred.

No man ought to use a gun, until he has had it proved, and that at least twice, for the English themselves, appear to have no great faith in the Tower proof. The best proof,

is that made with water, which is done by filling the barrel with that fluid, then stopping up the muzzle with a plug, or piston, which fits it exactly; the barrel being placed in an upright position, a weight is applied to the top of the piston, to force it down, and the water being elastic, presses against every part of the barrel alike. It is said that a comparatively light pressure, will burst the best gun barrel. The Russians prove all their ordnance in this manner; it is considered more certain and less expensive than the ordinary method by powder.

The Stock

The shape of that of the gun, is very material to the shooter, and about which very little can be said; because, every man must have a stock that will permit the gun to come up to the shoulder easily. For my own part, I would prefer a stock rather straight than much bent. The gun should be stocked in such a manner as to make it balance at that part where it rests in the left hand, when in the act of firing. For my part, I do not approve of the scroll guard, nor do I consider the cheek piece as any advantage. The plainer the stock the better.

The Lock

The lock has undergone a variety of alterations, until it would seem, that but little room is left for further improvement; nor do I consider any further amendment necessary, as every useful purpose appears to be completely answered by the common lock, adapted to the percussion primer.

We very frequently hear of patent locks and patent guns, but so far, none of them have answered any useful purpose. A Mr. Hart of Chautauqua county, New York, has invented a lock, said by some, to be very ingenious and simple; I have never seen one myself, and cannot give any opinion about it; time, the best test of inventions, will, in a few years, determine its value.

Mr. Constable of Philadelphia, has received two guns from London, with what are called inverted, or reversed locks. They are on the same principle of the common lock, with the inside works reversed. The plate extends from the rear of the barrel, and on a line with it, down the stock to the gripe, which is strengthened by the false breech being continued several inches further, than in the common gun. These locks, can only be used on the percussion principle; the lock being thrown so far back, and the cock quite flush with the barrel, gives the piece a very neat and convenient appearance. I understand, that most of the fine guns, which are now manufactured, are constructed in this manner.

The adoption of inflammable percussion powder, has made quite a revolution in fire arms; and bids fair, to explode the flint and steel entirely. Mr. Forsyth, of London, has the merit of being the first inventor of the percussion lock, and although the plan by him adopted, has been changed, still he is deserving of the greatest credit, for hitting upon that, which no other person ever thought of. This plan was a chamber, or magazine, which contained a number of grains of the powder, and so constructed, as to admit of but one being fired at a time; in consequence, however, of some of the locks being incorrectly made, or from

the imperfection of the plan itself, several serious accidents occurred, and the principle was likely to get into disrepute; several innovations were made by the London makers, before the expiration of the patent, for which, the parties had to answer in heavy damages. By permitting those, whose business would afford it to make guns on their own plans, for a trifling compensation, of something like five pounds a lock, Mr. Forsyth, was enabled to realize a very large amount of money, before the term of his patent expired. After that time a great many plans were projected, but out of the whole, I believe not more than two, are now in general use, I mean the copper cap and grained powder, and there are comparatively, but few of the latter in use. Which of the two plans is the better, is somewhat disputed, both, having their advantages and disadvantages. The only objection to the caps is, that on some guns, when exploded, the small pieces of copper fly back, and strike the hands and sometimes the face of the shooter. I have known one, or two gentlemen, considerably injured in this way. This does not, of course, occur, when the powder is used in grains; but I am not so sure, there is no danger in using the small flask, in which the powder is kept for priming.

The cap appears to be the most convenient method, and upon the whole, the safer, inasmuch as the appearance of the cap, on the top of the nipple, is notice to every one that the gun is charged, and can be so readily displaced, at the will of the shooter, and moreover, it is less liable to be affected by dampness, than the grained powder. It must be admitted, however, that the latter, is much the most economical method of using the powder.

There is one very serious inconvenience, which we are subject to, in this country, in using the cap primer; and that is, the inequality of their size—this could, and ought to be remedied.

We are in the habit of using the French, English and American caps; all of which differ in shape and size, the first are more generally used, on account of their cheapness, though they are by no means so good, as either the English, or American. I have tried several kinds, and have never found any, that pleased me so well, as those made by Mr. Joshua Shaw, of Philadelphia; who by the by claims to be the original inventor.

The advantages of percussion priming, over the common gun powder, are instantaneous discharge of the gun, never subjecting the shooter to the mortification, always attending a hang fire in damp weather—the reduction of the charge of powder, about one-third,—rarely missing fire, —and above all, its great safety.

The percussion lock, has been used on rifles, but I am told not so successfully, as could be wished for; it is alleged that the force of the cock on the barrel, will depress the piece, and cause the ball to strike too low. If this be the case, the lock might be so constructed, as to strike the primer horizontally and parallel with the barrel and line of sight. I have often thought, it would be practicable, to ignite a charge of powder, by air suddenly condensed; if it could be effected, this method, would have some advantages over any other;—this suggestion is made with the hope, that some of our ingenious mechanics, will make the experiment.

Chemists, have for many years past, been well acquainted with the properties of oxymuriatic acid, combined with metals and alkalies; and attempts were long since made, in France, to introduce it into common gun powder, for the use of the army; but with dreadful results, and the practice was soon abandoned. The manufacture of percussion powder, requires great caution; and I would recommend the sportsman, to leave it with those who make it their occupation.

By some it has been supposed, that this composition, corroded the gun, more than the common powder; but so far as my experience goes, I have not found it to be the case, and on the contrary, think, that which is made with the oxymuriate of mercury, has a different effect. From experiments, I find, that the residuum of percussion powder, made from these materials, is less acid or alkaline, than from gun powder.

There are several receipts for making this composition, but I believe that which is now considered best, is the oxymuriate of mercury and common gun powder.

The Recoil

The recoil, or kick, as it is frequently called, is in most cases, the effect of an overcharge; but it frequently happens, that guns recoil exceedingly, when moderately charged and in good order.

It is sometimes the case, that there is an inequality in the bore, and although, it may be imperceptible to the eye, it will, nevertheless, produce a recoil; it is supposed to be caused, by the resistance which is met with, by the flame,

in passing from a wider, to a narrower part. The more foul a gun is, by repeated firing, the more likely she is to recoil. The shape of the stock, has some influence in this matter: a barrel, mounted on a straight stock, will recoil more than one that is placed on a stock more bent, or rather be more distinctly felt; as the curvation, has the effect to break, and decrease the force of the recoil. If the piece be not held firmly to the shoulder, the effect of the recoil will be increased.

Thomas says, "that a piece will recoil, if from the breech plug, being made too short, there remains some turns of the screw, not filled up, these hollows, wherein a part of the powder is lodged, forming an obstacle, that confines and retards the explosion."

It has been completely proven, by many experiments, that the recoil is not caused by the vent being placed some distance above the breech plug; or in a patent breech, above the bottom of the chamber. I know that has been generally thought to be the case, but the opinion is erroneous; for my own part, I would recommend the vent to be made, about a quarter of an inch from the bottom of the chamber, as it is less likely to be stopped up, than when situated lower in the barrel.

The Elevated Breech

This is an invention of Manton, and consists of a broad rib, about one-eighth of an inch in height at the breech, and extending from one end of the barrel to the other; it is in fact, nothing more, than the common rib elevated. This may answer very well for young sportsmen, who are apt to

shoot too low, or for others who have that fault. The point, from which the sight is taken at the breech, being raised; the line of sight is depressed, and the line of fire, is consequently elevated.

Cleaning The Barrels

This operation is so generally understood, especially by old sportsmen, that it is unnecessary to enter into a discussion of it. I will, however, make one or two remarks, which may, perhaps, be useful to the young shooter. As has been before remarked, he should never sleep after a day's shooting, without cleaning his gun completely; and he had better do it himself, than trust to servants, unless they are perfectly competent, and not disposed to slight, or neglect their business. The breech pins, should be very seldom taken out;—if the barrels are very foul, they should be first washed out with cold water; warm water and soap should then be used, with tow, or flannel, fixed on the end of the wiping rod, until the water comes out perfectly clear; they should be then rubbed with dry tow, or flannel, until perfectly dry, and when so, they should be stood before a fire until they are somewhat warm, then rub them, in, and outside, with an oiled rag. The best oil for that purpose, or for the locks, is the marrow, contained in the leg bone of a deer, or sheep, melted down and clarified,—the former is said to be preferable. To prepare this oil, the marrow should be collected, and well melted or rendered, in an iron pot, it should then be strained through a fine cotton cloth and bottled up, with a few small pieces of lead, in the bottle; the feculent matter contained in the oil, having

a greater affinity to the lead, than the oil, will precipitate to the bottom, and leave the oil perfectly clear. When the barrels have become leaded, they should be taken to the gunsmith, who will rub them with fine sand paper, until all the lead is removed. Barrels cannot be too smooth inside.

Gun Powder

Who was the inventor, and when the discovery of gun powder was made, are both matters of great uncertainty and dispute. Schwartz, by many, has been supposed to have discovered this composition, in the early part of the fourteenth century, and the great probability is, that he was the first European who acquired the art; there can be but little doubt, that it was used in the East Indies, many centuries before it was known in Europe. The sportsman has, however, but little to do with its history; and those who are anxious to be better informed on the subject, are referred to Bishop Watson's Chemical Essays, and Dr. Rees' Encyclœpedia; in both of which, the subject is treated scientifically and historically.

Sporting powder, is said to be composed of six parts of nitre, one of sulphur, and one of charcoal. These proportions are varied by different manufacturers, and sometimes other ingredients are introduced. Every manufacturer has his own particular method, both as to the proportion of ingredients, and the manner of compounding them.

Powder will always lose its strength, when suffered to become damp, and this will account for powder varying so much as it frequently does. I have used powder, on a fine

day, that was excellent, and on using the same in a few days after, have found it almost worthless, in consequence of having been, in the interim, improperly left in a damp place. If powder well dried, be left for a few hours in a damp situation, it will be found to increase in weight, from absorbing the moisture of the surrounding atmosphere.

For this reason, powder should be kept in the driest situation; and I would recommend the shooter, always to dry it before he goes out; this can be done by exposing it for a few minutes to the sun, or by spreading it on a warm plate; by so doing, the increase of strength will be astonishing. It often happens, that the manufacturer is censured, when the negligence of the shooter is the only cause of deficiency in the powder. Powder also loses its strength by age, particularly so, if the canister be not occasionally shook. Philosophers have not, as yet, been able to explain satisfactorily the principle on which powder propels the charge, for it is not certain that it does not act in every direction alike, though some detonating powder acts only in one direction. It has been supposed, that a fluid of an elastic nature, is generated at the explosion, by which the shot is driven out of the barrel; other hypotheses have been advanced on the subject, none of which are necessary to be discussed in a work of this kind—we are well ascertained of the effect, and the cause, we must leave with those, who have leisure and ability for philosophical investigation.

Powder to be good, should be quick, strong, free from impurity, and not liable to attract moisture from the atmosphere. The general method of trying the purity of the powder, is by burning it on clean white paper; two or three

small heaps are made, near each other, and one of them is fired, if the smoke rises perpendicularly and there be no feculent matter left on the paper, nor the other heaps fired, it is considered as evidence that the ingredients have been of a good quality, and well compounded. If, however, the other heaps are fired, the paper burnt, or a dirty residuum left, it may be supposed, that the nitre was impure, that the charcoal was not completely pulverized, or the whole of them, were not well incorporated together. It is remarkable, that powder will vary in its proof at different times of the day, and from what cause, we know not, in truth, notwithstanding it has been in use for four hundred years, we are still but partially acquainted with the nature and properties of this article.

Several methods of proving, or trying the strength of powder, have been adopted, but with the exception perhaps, of Mr. Dupont's Eprovette, none of them can be relied on for much accuracy, when used for fine powder. The mortar is very uncertain, and the spring eprovette is worse than useless, and should be abolished.

I shall conclude this subject, by inserting a communication, made by Capt. Thomas J. Baird, of the U. S. Army, on ordnance duty; in which a detail of a number of experiments, on powder from different manufacturies, were kindly made by him at my request. I was well aware, that many partialities existed, in favour of foreign powder, and prejudice was against our own; it was therefore considered advisable to have a fair and impartial trial given to both, by some person, whose profession and character, would silence every suspicion of unfairness, or partiality;

and the public may rest assured, that the following is a true and honest report of every result.

Arsenal, Frankford, April 24, 1827.

To the author of "The American Shooter's Manual."

My dear Sir:

It is with much pride and satisfaction I communicate to you, the result of a series of experiments, made upon several samples of powder which you furnished me, for that purpose, together with that manufactured by Messrs. Dupont de Nemours & Co. of Baltimore.

I say that I am proud to communicate these results, not only because they fully prove, that our powder is the best in the world, but they enable me to do justice to the manufacturers; who from their care and enterprise, have not only been able to compete with, but have actually, in a few years, outdone all Europe, in this important article. This is a pretty bold assertion, but it is nevertheless true.

I speak without prejudice, and although I have invariably given the preference to domestic articles, when of as good a quality, and at as reasonable prices as foreign, still I have never boasted of so much patriotism, as to give a high price for an inferior article, because made at home.

There is certainly no nation in the world, whose manufactures, in general, have so justly become celebrated, as Great Britain, and in no article, perhaps, more than gun powder. The French powder has been highly spoken of, but by experiments made upon, what is called "King's powder," made expressly for the King of France and his

court, and which is doubtless the best made in France, it has been found not to bear comparison with Pegou, Andrews & Wilkes, which is no doubt the best foreign powder ever introduced into this country.

The annexed table, will show the result of the experiments, which were made upon an improved Eprovette, for the proof of fine sporting powder. This Eprovette, is nothing more than a small chamber capable of containing about the charge for a patent breech fowling piece, placed in a vertical position; so, that the action of the powder, is upwards; when loaded, a weight of about four pounds, attached to a lever, is let down so as to cover the chamber. To the moveable end of the lever, a graduated ribbon is so attached, that when explosion takes place, the weight is thrown up, taking with it the ribbon, which passes through a small slide; the weight, of course, again falls to its place, but the ribbon is held by the slide, at the point to which the force of the powder carried the weight.

TABLE

DESCRIPTION OF POWDER	1ST RANGE IN DEGREES	2ND RANGE IN DEGREES	3RD RANGE IN DEGREES	MEAN RANGE IN DEGREES
Pegou, Andrews and Wilke's single seal.	82	81	82	82
do. do. double seal.	95	84	95	91
do. do. Canister ..	110	105	105	107
Edinburgh	93	93	93	93
London *	78	82	82	81
Dupont de Nemours & Co.	112	115	119	115

NOTE: The Dupont being 8 degrees stronger than Pegou, Andrews and Wilke's Canister.

* The London powder is said to be of an inferior quality to the Edinburgh.

By this it will be seen, that Dupont's powder is eight degrees stronger than the best sample of foreign, namely, Pegou, Andrews, & Wilke's.

Having tested the strength, I shall now proceed to show the quickness of the different samples, as proved by a machine invented by Mr. A. Dupont. This manner of testing quickness upon this machine, is both simple and satisfactory. It is nothing more, than burning a train of twelve feet, or one hundred and forty-four inches, of each of the two samples to be tried; these trains are laid parallel to each other; and the board being graduated, you see plainly the comparative quickness of each sample. The following, is the result of these experiments; Dupont taken as the standard, one hundred and forty-four.

TABLE

DESCRIPTION OF POWDER	INCHES	DESCRIPTION OF POWDER	INCHES	DIFFERENCE IN FAVOUR OF DUPONT'S INCHES
Dupont's...	144	Pegou, Andrews & Wilke's double seal..	96	48
Dupont's...	144	do. do. Canister.....	103	41
Dupont's...	144	Edinburgh	128	16
Dupont's...	144	London	102	42

By this it will be seen, that there exists a still greater difference in favour of Dupont's powder, over the foreign, in point of quickness, than in that of strength. When we consider the difference between one hundred and forty-four, and one hundred and three, we will perceive that Dupont's powder burns nearly one-third faster, than Pegou, Andrews, & Wilke's justly celebrated canister. The Edinburgh powder, comes nearest Dupont's, in point of

quickness, burning as one hundred and twenty-eight, to one hundred and forty-four, making a difference of one-ninth, in favor of Dupont's; although it falls far short of Pegou, Andrews, & Wilke's, in strength.

I must also remark, that the residuum, in burning all these powders, is much greater than in Dupon't, consequently, the latter also possesses the quality of cleanliness in a greater degree, than the others.

Having now given you the result of those experiments, without favour, or prejudice, and merely that your book might contain such information, as would put it in the power of any one to select the best powder, I will only add, that I hope and trust, every sportsman, who believing in the authority of this statement, and who purchases foreign powder, will at least have the candour to acknowledge, that it is from prejudice and not from judgment, that he prefers it.

With much esteem,

I am, your obedient servant,

T. J. B.

Shot

Except the English shot, that manufactured in Philadelphia, is the best made in this country, being more even in size and more uniformly round, than that made in the western country.

We, however, labour under one disadvantage, and that is, the great variation in the sizes of the shot as to numbers, from one year to the other, this could, and ought to be avoided, by the manufacturers.

The following is an exact statement of the number of pellets, contained in an ounce of shot of the following numbers:

B. B.	contains	58	pellets
B.	do.	65	do.
No. 1	do.	82	do.
2	do.	112	do.
3	do.	135	do.
4	do.	177	do.
5	do.	218	do.
6	do.	261	do.
7	do.	289	do.
8	do.	660	do.
9	do.	970	do.

Wadding

Pasteboard, or cards, make very good wadding, if the punch used for cutting, be of a full size of the bore of the gun. Hat is also used, and is better than either the former, in some respects, but it is liable to one objection, and that is, when the barrels become warm from repeated firing, the glue contained in it, will sometimes come out and adhere to the barrel. From my own experience, I would recommend thin binder's boards; each wad having a small hole made in it, to let the air escape, in ramming it down, without this precaution, the elasticity of the air, will sometimes force the rod out of the shooter's hands; and I have known more than one to lose his rod entirely, when shooting on water.

It is proper here to state, that no matter what a gun be

wadded with, air will frequently escape through the vent, when blown into at the muzzle: So that, that test, is no criterion by which it can be ascertained, whether it is charged or not. I insert this, because I have heard of two accidents which occurred, by the party relying upon that experiment.

RECEIPTS

Scabby ears

Mercurial ointment, rubbed in a few times, will remove the disease.

Canker in the lips

Rub the parts affected with alum water, two or three times a day, or rub with bole armoniac and burnt alum occasionally.

Films in the eye

Bathe the eye frequently, with the solution of blue vitriol of the size of a large bean, in a pint of rain, or spring water, or take of verdigries, one scruple, water, four ounces.

Shot wounds

Get out the shot, if possible, and rub the parts with mercurial ointment.

Sore feet

Wash the dog's feet every day, morning and evening with salt and water. In warm weather, warm water and

soap will have a good effect; if the skin be broken, salt and water should be used. Alum water will harden a dog's feet.

For Fleas and Lice

Take of white arsenic, one drachm, water, one gallon, soft soap, quarter of a pound, boil them together ten minutes, and then let it stand to settle, decant it into another vessel all but the grounds, wash the dog with the water. A very weak decoction of tobacco, will be found as good as any other remedy.

To bring hair on a scalded place

Calcine a piece of leather, beat it up fine and mix it with hog's lard, rub the part once or twice a day.

For a flesh wound

Cut off the hair from the wounded part; then take some fresh butter, and burn it in a pan; whilst the butter is hot, dip a bit of lint into it, and place it on the whole of the wound: repeat this twice a day, and wash the wound with warm water and milk, or with castile soap and warm water.

To dry up a bitch's milk

Bathe the teats well several times with warm vinegar, or warm water.

To recover the sense of smelling

Two drachms of agaric, one scruple of sal gammæ; beat these into powder, and mix them well with simple oxymel, making a pill as large as a hickory nut, cover it with butter, and force it down the throat if the dog will not take it without that trouble.

To make shoes resist water

Take half a pound of tallow, four ounces of hog's lard, four ounces of turpentine, two of bees' wax, and the same of olive oil, melt them over a slow fire and stir it frequently. Another, one pint of linseed oil, half a pound of mutton suet, eight ounces of bees' wax, and a piece of rosin as large as a walnut, the whole to be boiled together.

TECHNICAL TERMS

A brace of pointers, or setters.
A leash of pointers, or setters.
A couple of spaniels.
A couple and a half of spaniels.
A brace of grouse.
A leash of grouse.
A pack of grouse.
To raise grouse.
A brace of partridges.
A brace and a half of partridges.
A covey of partridges.
To raise, or spring partridges.
A brace of pheasants.
A pack of pheasants.
A couple of woodcocks.
To flush a woodcock.
A couple of snipes.
To spring a snipe.
A wing of plover.

A pair,—a couple,—a brace.—A pair is two united by nature, e. g., a pair of rabbits. A couple by an occasional chain, as a couple of hounds. A brace by a noose or tie, as a brace of partridges. A pair is male and female; a couple, two incidental companions; a brace, is two tied together by the sportsman.

FORM OF A SPORTSMAN'S JOURNAL

Where Killed	When	Black Game	Grouse	Partridge	Pheasant	Woodcock	Snipe	Duck or Wild Fowl	Hare	Rabbit	Total Each Day	Shots Missed	Remarks on Each Day

General Observations:

THREE HUNDRED AND SEVENTY-FIVE COPIES OF THE
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